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ABSTRACT

This report reviews five major international comparative studies on educational practices, assessment systems, and educational outcomes for students with disabilities. The five studies reviewed are: (1) the Reading Literacy Survey conducted by the International Association for the Evaluation of Educational Achievement (IEA); (2) the International Assessment of Educational Progress of the Educational Testing Service; (3) the Third International Mathematics and Science Study; (4) the International Education Indicators Project of the Organization for Economic Co-Operation and Development; and (5) the Computers in Education Study to be conducted by the IEA. The report notes differences in sampling procedures and the extent to which students with disabilities participate in the assessments. The report also reviews the educational and assessment systems of 14 countries, focusing on the participation of students with disabilities. Educational assessment systems in the following countries are described: Argentina, Australia, Canada, Chile, China, England and Wales, France, Japan, Korea, the Netherlands, Nigeria, Sweden, Tunisia, and the United States. Each country description includes information on the general education system, including age of entry and duration of schooling, educational policies and procedures for students with disabilities, how decisions are made about placements, assessment practices, and the reporting of assessment results. (Contains 86 references.) (DB)

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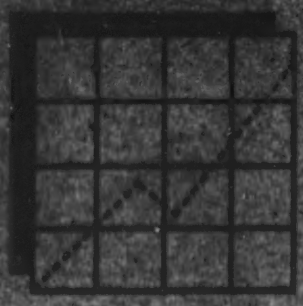

A Perspective on Education and Assessment in Other Nations: Where are Students with Disabilities?

National Center on Educational Outcomes

The College of Education
UNIVERSITY OF MINNESOTA

in collaboration with

St. Cloud State University
and
National Association of State Directors of Special Education

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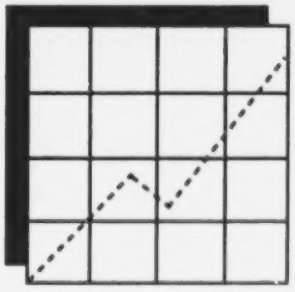

A Perspective on Education and Assessment in Other Nations: Where are Students with Disabilities?

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James E. Ysseldyke

National Center on Educational Outcomes

The College of Education
UNIVERSITY OF MINNESOTA

April, 1995

The National Center on Educational Outcomes (NCEO), established in 1990, works with state departments of education, national policy-making groups, and others to facilitate and enrich the development and use of indicators of educational outcomes for students with disabilities. It is believed that responsible use of such indicators will enable students with disabilities to achieve better results from their educational experiences. The Center represents a collaborative effort of the University of Minnesota, the National Association of State Directors of Special Education, and St. Cloud State University.

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Abstract

Comparative studies of student performance in different countries have revealed differences not only in educational outcomes but also in educational practices and assessment systems. In this paper, we examine five major international comparative studies noting differences in sampling procedures and the extent to which students with disabilities participate in the assessments. We also review the educational and assessment systems of 14 countries focusing again on the participation of students with disabilities. Caution is advised in making comparisons among assessments or in international comparatives studies without first considering cross-national differences in educational and assessment systems and the extent to which students with disabilities participate.

A Perspective On Education and Assessment in Other Nations: Where Are Students with Disabilities?

Overview

The United States is currently alarmed about the failure of its educational system to produce good citizens who have the skills needed to compete in a global economy. As a result, it has engaged in a set of activities designed to remedy this situation, ranging from the passage of educational reform laws (e.g., Goals 2000: Educate America Act, Improving America's Schools Act, School to Work Opportunities Act), to involvement of the business community in identifying goals and practices (e.g., SCANS, 1991), to renewed commitment to national and international assessments to monitor progress.

Results from international comparative studies, in fact, were a primary impetus for concerns about the poor performance of America's students and the need to reform and rejuvenate the U. S. educational system. Despite protests by some researchers (e.g., Berliner, 1995; Bracey, 1993, 1994; Stedman, 1994) about the validity of results, international comparisons seem consistently to position the U. S. almost at the bottom. American students know less math, are less literate in reading, and lack understanding in other subject areas.

The performance of U. S. students and citizens on their own country's assessments, such as the National Adult Literacy Survey, the National Assessment of Educational Progress (NAEP), and the Scholastic Aptitude/Achievement Test, similarly has led to concerns. In addition to concerns about performance on these assessments, there has been recent interest in exactly who is included in the assessments. Work at the National Center on Educational Outcomes (NCEO) raises questions about the extent to which U. S. national assessments and the assessments of individual states actually reflect the performance of "all" U. S. students (McGrew, Thurlow, Shriner, & Spiegel, 1992; Shriner, Spande, & Thurlow, 1993). In fact, it has been estimated that only half of those students receiving special education services participate in NAEP, and anywhere from 0% to 100% in various state assessment programs (with most states excluding about half of their students with disabilities).

Findings about the exclusion of students with disabilities in U. S. assessments necessarily lead to questions about the status of students with disabilities in international comparison assessments and in the assessments used in other nations. Are students with disabilities included in these assessments? Are appropriate accommodations used during the assessments? When are "exclusion rates" reported? Do all countries start from the same base of "all" students?

The purpose of this paper is to address these kinds of questions. We do this by examining students with disabilities in international comparison studies and in assessments in each of 14 nations, including the U. S., that are among those included in previous or current international comparative studies.

International Comparative Studies

Most societies value the school achievement of their youth. This is reflected in the cooperation of many nations in attempts to collect common sets of data on students. Those who have conducted international comparative studies in education have continuously published reports that warn of a crisis in the U.S. educational system associated with students' low performance, particularly in mathematics and science, and a crisis due to the U.S.'s reduced economic competitiveness (Torney-Purta, 1990).

Quality of education is a focus of interest in many nations, but cross-national comparisons are generally made in terms of outcomes. Results of international studies have been used to show and explain how educational outcomes differ across countries. They show how well or poorly students in a country are performing relative to those in other countries. Cross-national comparisons in student achievement go beyond a simple documentation of differences across countries. International studies have allowed stakeholders to trace parallel trends in the development of educational practices and assessment. Findings from international comparisons have guided policy in education in at least two ways: (a) each country learns from other countries' experiences of successes or failures in educating their youth, and (b) policymakers make innovative changes in the education of their youth through the understanding of other countries' successful reform activities (Torney-Purta, 1990). In addition, a growing international theme has been noted in the role of national curricular plans and national goals that are formulated in a way to be used as criteria for evaluation.

Five major international comparisons are reviewed in this section: (a) Reading Literacy Survey (IEA), (b) International Assessment of Educational Progress (ETS), (c) Third International Mathematics and Science Study, (d) International Education Indicators Project (OECD), and (e) Computers in Education Study (IEA). For each of these we describe the purpose, what we know about the inclusion of students with disabilities in them, and what we know about the use of accommodations.

Reading Literacy Survey

The International Association for the Evaluation of Educational Achievement (IEA) conducted surveys in 1991 of the reading literacy of 9- and 14-year-olds in 32 countries (Elley, 1992; National Center for Education Statistics [NCES], 1994). (See Table 1 for an alphabetical list of participating countries and their ranking in overall reading achievement.) The purpose of this study was to ascertain average levels of reading literacy and voluntary reading activities, and to identify factors related to differences in reading literacy among different systems of education. This information was to become baseline data for monitoring reading achievement, and to facilitate the development of valid international reading literacy tests. The selected ages of the samples were based on an earlier IEA study that suggested age 9 would be useful for identifying factors related to learning to read, and age 14 would represent the level of reading achievement of students exiting the compulsory-school system (Elley, 1992).

Exclusion criteria. Student populations targeted for the IEA Survey of Reading Literacy were all students attending mainstream schools on a full-time basis. The percentages of students excluded from the defined population and during the testing are shown in Table 2. According to Elley (1992), "students in separate special education schools were excluded from the defined [target] populations" (p. 101). Students not given the tests during the testing session were those who were "unable to take any items on the test because of learning or physical disability (typically mainstreamed children)" or those who "have insufficient knowledge of the language of the test even to follow the general instructions (typically recent immigrants)" (Elley, 1992, p. 101). Students with disabilities who do not fall into the above categories of exclusion may have participated in the reading literacy surveys. However, Elley (1992) and the Reading Literacy Technical Report (NCES, 1994) did not discuss accommodations allowed in testing for students with disabilities.

International Assessment of Educational Progress

The International Assessment of Educational Progress (IAEP) was initiated by Educational Testing Service (ETS) in 1988 for the purpose of international comparative studies. Stimulated by the increased interest of other countries in using NAEP test items in their national assessments of educational achievement, the first IAEP was conducted to assess achievement in math and science of samples of 13-year-old students in five countries (Ireland, Korea, Spain, United Kingdom, U.S.A.) and four Canadian provinces (British Columbia, New Brunswick, Ontario, Quebec) (Educational Testing Service [ETS], 1992b; Suter & Sherman, 1989; Torney-Purta, 1990).

Table 1

Participating Countries and Ranking in IEA Reading Literacy Survey

	Age 9	Age 14
Belgium (French)	13	24
Botswana	--	31
Canada (British Columbia)	17	15
Cyprus	22	22
Denmark	24	13
Finland	1	1
France	4	2
Germany (East)	18	12
Germany (West)	16	16
Greece	14	21
Hong Kong	9	8
Hungary	19	5
Iceland	8	6
Indonesia	26	--
Ireland	12	20
Italy	5	18
Netherlands	21	19
New Zealand	6	4
Nigeria	--	29
Norway	7	17
Philippines	--	27
Portugal	23	14
Singapore	10	10
Slovenia	20	11
Spain	15	23
Sweden	3	3
Switzerland	11	7
Thailand	--	26
Trinidad/Tobago	25	25
U. S. A.	2	9
Venezuela	27	28
Zimbabwe	--	30

Note. Dashes indicate that five countries did not participate at the age level of 9 and no information is available for Indonesia at the age level of 14.

Source. Elley (1992, pp. 14, 24).

Table 2

Percentage of Students Excluded from IEA Reading Literacy Survey

	Age 9 (5)		Age 14 (%)	
	From Population	During Testing	From Population	During Testing
Belgium (French)	3.6	0.32	3.8	0.00
Botswana	--	--	0.0	0.00
Canada (British Columbia)	1.2	2.33	1.1	0.38
Cyprus	0.0	0.44	0.0	0.07
Denmark	0.0	3.27	0.0	0.51
Finland	9.2	0.00	12.4	0.00
France	16.0	0.00	21.0	0.00
Germany (East)	0.0	0.13	0.0	0.12
Germany (West)	0.0	0.85	0.0	0.36
Greece	0.0	2.98	1.4	0.39
Hong Kong	2.6	0.00	1.2	0.00
Hungary	2.4	0.00	0.25	0.00
Iceland	0.5	1.43	2.6	0.10
Indonesia	0.0	0.00	--	--
Ireland	4.2	0.14	0.0	0.11
Italy	8.6	1.10	4.8	0.80
Netherlands	0.0	0.18	0.0	0.00
New Zealand	0.0	0.32	0.0	0.34
Nigeria	--	--	0.0	0.00
Norway	0.3	1.43	0.2	0.47
Philippines	--	--	0.0	0.00
Portugal	0.0	0.11	0.0	0.00
Singapore	0.0	0.68	0.0	0.00
Slovenia	0.0	0.10	0.0	0.00
Spain	11.1	0.00	6.5	0.00
Sweden	0.0	0.91	0.0	0.52
Switzerland	0.0	0.80	0.0	0.34
Thailand	--	--	0.8	0.00
Trinidad/Tobago	0.0	0.01	0.0	0.00
U. S. A.	4.9	2.33	4.9	0.58
Venezuela	0.2	0.22	1.2	0.20
Zimbabwe	--	--	0.0	0.00

Note. Dashes indicate that five countries did not participate at the age level of 9 and no information is available for Indonesia at the age level of 14.

Source. Elley (1992, pp. 102, 103).

Table 3

Countries, Participants, and Performance (Percent Correct) in Second IAEP:

Country	Participants	Math		Science	
		Age 9	Age 13	Age 9	Age 13
Brazil	Cities of Fortaleza (F) and Sao Paulo (S), in-school population*, restricted grades	(F) - (S) -	32 37	- -	46 53
Canada	Four provinces at age 9 and nine provinces at age 13 out of a total of ten	60	62	63	69
China	Twenty out of twenty-nine provinces and independent cities, restricted grades, in-school population	-	80	-	67
England	Low participation at ages 9 and 13	59	61	63	69
France	Representative of all students	-	64	-	69
Hungary	Representative of all students	68	68	63	73
Ireland	Representative of all students	60	61	57	63
Israel	Hebrew-speaking schools	64	63	61	70
Italy	Province of Emilia-Romagna, low participation at age 9	68	64	67	70
Jordan	Representative of all students	-	40	-	57
Korea	Representative of all students	75	73	68	78
Mozambique	Cities of Maputo and Boira, in-school population, low participation	-	28	-	-
Portugal	Restricted grades, in-school population at age 13	55	48	55	63
Scotland	Low participation at age 9	66	61	62	68
Slovenia	Representative of all students	56	57	58	70
Former Soviet Union	Fourteen out of 15 republics, Russian-speaking schools	66	70	62	71
Spain	All regions except Catalufia, Spanish-speaking schools	62	55	62	68
Switzerland	Fifteen out of 26 cantons	-	71	-	74
Taiwan	Representative of all students	68	73	67	76
U.S.A.	Representative of all students	58	55	65	67
IAEP Averages:		63	58	62	67

Note. In-school population means populations where more than 10% of the age-eligible students do not attend school.

Source. ETS (1992a). *IAEP Press Kit*

These international educational assessments, conducted in 1988 and again in 1991, were funded by the National Science Foundation and the National Center for Education Statistics. In the second IAEP study, students aged 9 and 13 from about 20 countries (see Table 3) were tested in math, science, and geography (Suter & Sherman, 1989).

The IAEP used test items from a pool of items used in the 1986 NAEP, which was established to monitor educational achievement in the United States. The results of the first IAEP are documented in a report entitled A World of Differences (Lapointe, Mead, & Phillips, 1989). Test items in the second IAEP were selected both from NAEP and from items provided by participating countries. The second IAEP study was said to have greater representation of each country's curriculum in each subject area than the first IAEP study. The results of the 1991 IAEP study were used in a cross-linking study with NAEP.

The results of the mathematics achievement of 13-year-old students in various countries, which was conducted in 1991, were statistically linked to the results from the 1992 NAEP study of mathematics achievement of U.S. eighth-grade students. This linkage provides comparisons of academic achievement between U.S. states and other countries. For the comparisons see Education in States and Nations: Indicators Comparing U.S. States with the OECD Countries in 1988 (NCES, 1993).

Exclusion criteria. The guidelines for excluding students from the second IAEP were based on the 1988 NAEP guidelines. The second IAEP guidelines are provided in the IAEP National Coordinator's Manual (ETS, 1990). It reads that students can be excluded only if they cannot function in the test situation. According to the manual, non-native language speakers, educable mentally retarded students, and functionally disabled students are considered unable to function in the testing. The reasons for any exclusion from IAEP testing (see Table 4) were to be documented on the Student Listing Form by school coordinators. The school coordinator was encouraged to include the student in the assessment when in doubt about a student's involvement in assessment. However, there is no information about the number of students who were excluded from the IAEP studies.

According to the manual, some students with disabilities may have participated in the IAEP assessments. IAEP recommended that countries provide a practice test a day or two prior to the assessment for students who were not familiar with multiple-choice formats (ETS, 1992b). However, documentation of testing accommodations allowed specifically for students with disabilities has not been found.

The Third International Mathematics and Science Study

The Third International Mathematics and Science Study (TIMSS) is investigating differences in outcomes of math and science education across countries, schools, and students of three age groups: 9-year-olds, 13-year-olds, and those in their last year of secondary school. The predecessor of TIMSS was the Second International Mathematics Study (SIMS). The SIMS was conducted in the early 1980s in 20 educational systems around the world (International Association for the Evaluation of Educational Achievement [IEA], 1987). The following countries participated in the SIMS.

Belgium (Flemish)	Hong Kong	Nigeria*
Belgium (French)	Hungary	Scotland
Canada (British Columbia)	Israel	Swaziland*
Canada (Ontario)	Japan	Sweden
England and Wales	Luxembourg*	Thailand
Finland	Netherlands*	United States
France*	New Zealand	

(* These countries only tested students ages 12-13 or in the eighth grade, but other countries tested students at the end of secondary school or in the twelfth grade as well as students ages 12-13).

The SIMS focused on international differences in the mathematics curriculum, teaching methods, and student achievement in mathematics. Included in the SIMS were the following components (IEA, 1987):

> arithmetic, algebra, geometry, statistics, measurement, attitudes toward mathematics, opportunity-to-learn mathematics, curricular differentiation and intensity, homework, class size, yearly hours of mathematics instruction, teacher background and attitudes, role of mathematics textbook, and extent of calculator use.

An executive summary about the SIMS results is provided in The Underachieving Curriculum (IEA 1987). The First Mathematics Study focused more on student achievement in mathematics and r[illegible]ued it as the overall educational outcome. Although the result of each of these studies was a ranking of countries based on their scores in the specified areas, the main goal of TIMSS is not ranking of

countries but gathering information about successful educational practices (Robitaille, McKnight, Schmidt, Britton, Raizen, & Nicol, 1993).

Table 4

Reasons for Exclusion from IAEP Testing

Student Listing Form
Age 13
Instructions

1. List all students enrolled in your school born between January 1, 1978 and December 31, 1978 in column A.

2. For each student on the list, provide his or her birth date (month and year), sex, grade, and a homeroom or other locator information in columns B, C, D, and E respectively.

3. Draw a line through any student who cannot function in the test situation for one or more of the reasons listed below. Draw the line thin enough so that you can still read the name. When in doubt about a student's involvement in the assessment, the student should be included in the assessment.

   - Non-native Language Speakers. These are students who do not read or speak the language of the assessment and would be unable to overcome the language barrier in the test situation. Typically, a student who has received less than two years of instruction in the language of the assessment should be excluded; all others should be included.

   - Educable Mentally Retarded (EMR). These are students who have been psychologically tested as EMR students or students who are considered EMR in the professional opinion of the principal or other qualified staff members. Students should NOT be excluded solely because of poor academic performance or normal discipline problems.

   - Functionally Disabled (temporary or permanent physical disability). These are students who are so disabled that they cannot perform in the IAEP testing situation. However, functionally disabled students who can respond should be included in the assessment.

4. Write the reason for excluding any student in column F.

Source. ETS (1990). *IAEP National Coordinator's Manual*

TIMSS was launched in the Fall of 1994 under the direction of Al Beaton, an education professor at Boston College. Sponsored by IEA, TIMSS will investigate teaching practices and the influence of instructional practices and curricular content in mathematics and science on the achievement of the age 9 and age 13 sample groups (Schmidt, 1993). TIMSS is a cross-national study, which describes mathematics and science learning outcomes and explains why differences exist (see Table 5 for the TIMSS study components).

The TIMSS surveys are being administered at two different times, either in the fourth quarter of 1994 or in the second quarter of 1995, depending on when the school year begins in the calendar year (Foy & Schleicher, 1994). The main survey involves the following countries (Foy & Schleicher, 1994):

Austria	Estonia	Korea	Scotland
Australia	France	Kuwait	Singapore
Belgium	Germany	Latvia	Slovakia
Bulgaria	Greece	Lithuania	Slovenia
Canada	Hong Kong	Mexico	Spain
China	Hungary	Netherlands	Sweden
Cyprus	Indonesia	New Zealand	Taiwan
Czech Republic	Iran	Norway	Thailand
Denmark	Ireland	Poland	Tunisia
Dominican Republic	Israel	Portugal	United States
Ecuador	Italy	Romania	Venezuela
England/Wales	Japan	Russia	Zimbabwe

The basic test consists of 70 multiple-choice questions and 30 longer open-ended questions. In addition, a small subgroup of students takes an hour-long performance assessment that may require them either to conduct a physics experiment or work out and explain in writing a complex math problem (Viadero, 1994). For those students specializing in math or science, different forms of the test will be administered. In the U.S., the target group includes high school students taking more advanced classes in those subjects. This aspect of TIMSS will yield information on what researchers are calling the "attained curriculum" or what is learned.

Table 5

Study Components of TIMSS

Student Achievement Data: Fined-grained mathematics and science scores much more detailed than the usual divisions, such as algebra or biology, will be used. For example, exams will delve into four types of geometry.

Curriculum Analysis: A detailed comparative analysis of mathematics and science curriculum standards and textbooks will be conducted in approximately 15 countries.

National System Information: Information will be gathered on characteristics of national school systems, including grade-level structure, staffing, and discipline.

School Background: A one-hour survey covering various aspects of school environment, including course structure, staffing and discipline will be collected.

Teacher Background: A two-hour survey will be given to teachers covering teaching practices, content coverage, attitudes, training and working conditions.

Student Background: A one-hour survey covering attitudes, use of time in and out of school, and other education-related topics will be administered to students participating in the study.

Supplementary Studies: In addition to the international components, a U.S. study team will analyze videotaped classroom observations and key education policy issues in up to five countries. Other states desiring to gain a comparison of their students and schools with other nations have the option of augmenting their participation.

Source. Licitra (1994, March 29). *Education Daily*, pp. 1, 3, & 4.

To gain information about the "intended curriculum"—what is supposed to be taught—and the "implemented curriculum"—what is actually taught—other measures have been devised. Underway is a process of analyzing the most widely used math and science materials of those countries participating in the study. One thousand two hundred texts and other curricular materials have been collected (Viadero, 1994). The materials are being analyzed for content.

To gather information on the "implemented curriculum," researchers will be surveying students and teachers in schools where the assessment is being administered. Students' home backgrounds and classroom experiences will be examined. Teachers will be asked to provide sample lesson plans. In addition, three countries (Germany, Japan, U.S.) are paying to have a cadre of researchers visit schools for the purpose of videotaping a typical classroom lesson for a subgroup of eighth graders participating in the assessment.

The framework for TIMSS took two years to complete. Reaching consensus on the specific test items was said to have taken almost as long (Viadero, 1994). The final results of TIMSS will not be available until 1996.

Exclusion criteria. In TIMSS, it is expected that "the target population will consist of all students in the appropriate grades in all schools of all educational subsystems of a country" (Wolfe & Wiley, 1992, p. 14). It is also stated in the TIMSS Sampling Plan (Wolfe & Wiley, 1992) that every effort will be made to minimize exclusions of students with special needs, thereby guarding against biases that are often raised in international comparisons due to such exclusions. Further, rules of the TIMSS 1994 surveys suggest there will be documentation of exclusions that do occur, the numbers of students excluded, and reasons for the exclusions (Wolfe & Wiley, 1992).

Those conducting TIMSS do recognize the possibility of excluding some children and some schools in the assessments of student achievement in mathematics and science. According to the TIMSS sampling plan, "certain children are physically, emotionally, or mentally unable to take the TIMSS tests [and] they may be located in special schools or special classrooms" (Wolfe & Wiley, 1992, p. 14). TIMSS also recognizes the possibility of excluding schools that are politically or geographically inaccessible.

In addition, a school may be excluded if it provides instruction only to students in the excluded categories defined under "within-school exclusions." According to the TIMSS Sampling Manual (Foy & Schleicher, 1994), within-school exclusions include educable mentally retarded students, functionally disabled students, and non-native language speakers. Definitions of these three categories are similar to those that were used for the second IAEP testing. The extent of within-school exclusions expected is unknown.

Provisions for assessment accommodations are neither mentioned in the TIMSS Sampling Manual (Foy & Schleicher, 1994) nor in the TIMSS Sampling Plan (Wolfe & Wiley, 1992). Although exclusion criteria are covered in depth, the manuals do not discuss those students who may need accommodations during assessment.

International Education Indicators Project

The International Education Indicators Project (INES) of the Organization for Economic Co-Operation and Development (OECD) was proposed in two preparatory conferences, hosted by the U.S. and French authorities in 1987 and 1988 respectively. Under the responsibility of the Center for Educational Research and Innovation (CERI) and with the financial support of the National Center for Education Statistics (NCES), the INES compared the educational systems of the OECD countries (NCES, 1993). The following OECD countries are participating in the International Education Indicators Project (NCES, 1993).

Australia	France	Japan	Spain
Austria	Germany	Luxembourg	Sweden
Belgium	Greece	Netherlands	Switzerland
Canada	Iceland	New Zealand	Turkey
Denmark	Ireland	Norway	United Kingdom
Finland	Italy	Portugal	U.S.A.

This project takes a comprehensive approach to measuring both educational outcomes and inputs/resources that may explain differences in student achievement across countries. Three clusters of educational indicators are used to provide information on: (a) the demographic, economic, and social contexts of education systems (i.e., population, employment, gender differences in education, the Gross Domestic Product per capita), (b) costs, resources and school processes (i.e., expenditure on education, pupil-teacher ratio, participation in education, decision-making), and (c) the outcomes of education (i.e., educational attainment, learning outcomes and achievement, post-school status) (Organization for Economic Co-operation and Development [OECD], 1992).

Exclusion criteria. The OECD International Education Indicators Project did not collect its own data, at least for three of the indicators of learning outcomes (i.e., mathematics achievement, school differences in achievement, student differences in achievement). Multiple comparisons of achievement scores of 13-year-olds in arithmetic, algebra, and geometry were based on the data from the Second International Mathematics Study collected by the IEA in the early 1980s, and comparisons of overall proficiency in mathematics and between-school variance drew upon the data from the second IAEP study conducted by ETS in 1991 (OECD, 1992).

Thus, the exclusion criteria for the OECD reports on student achievement may be different depending on the original source collecting data and the results presented. Similar differences would be expected in the accommodations allowed in assessment procedures, if in fact any were allowed. The OECD countries participating in the assessment of student achievement in mathematics agreed on the criteria requiring each country to clearly and consistently define the target population and keep the participation rate high, at a level of at least 85% (OECD, 1992). However, no data was found on the criteria for inclusion or exclusion of students with disabilities.

Computers in Education Study

The Computers in Education Study will be conducted by IEA. This is a survey designed to assess the use of computers in schools and to assess student proficiency in using computers. The countries that will participate are not known yet. However, once determined, each country will individually conduct the study. The target groups of students are those in grade 8 or age 10, age 13, and the last year of secondary education.

Exclusion criteria. Students who are considered "atypical" are to be excluded from the study. Excluded students are those who are severely disabled or unable to read or speak the language of the test, or whose schools are not recognized to be part of a mainstream national education program. It is unclear at this time whether this study provides any testing accommodations for students with disabilities. The ways in which results will be reported are also unknown.

Summary

The five international comparative studies reviewed here reflect the diverse approaches that have been taken in comparing nations. While it is not possible to specifically compare the exclusion criteria or the results of their application, this discussion of them certainly leads to questions about the likelihood that they could be implemented consistently from one country to another. When a country participates in an international assessment, it is likely that the ways in which exclusion criteria are applied are a reflection of the inclusion of students in the country's assessment and education systems. For this reason, it is

important to look more carefully into the education and assessment systems of some of the countries included in international comparative studies.

Educational Assessments in Other Nations

The purpose of this section is to review the educational assessment systems in 14 countries. These countries are identified in the world map below. They were selected because of their involvement in past or current large-scale assessments (e.g., nationwide assessments, province-wide testing, district-wide tests). We also investigate the extent to which students with disabilities are addressed in the large-scale assessments of student achievement outcomes. The 14 countries, listed in alphabetical order, are:

Argentina	China	Korea (South)	Tunisia
Australia	England and Wales	Netherlands	U.S.A.
Canada	France	Nigeria	
Chile	Japan	Sweden	

When an attempt is made to study a country's assessment system, it is necessary first to understand that country's educational system. Because we are interested in how students with disabilities are dealt with in the country's assessments, it is also important to look at special education within the context of the larger educational system.

In this section, we examine each country in terms of: (a) the general education system, including age of entry and duration of schooling, (b) educational policies and procedures for students with disabilities, (c) how decisions are made about placements, (d) assessment practices, and (e) the reporting of assessment results. Following the presentation of individual countries, we summarize what we know across countries.

The reader is advised that while some of the terminology in this section differs, it is interchangeable throughout (e.g., tracking and streaming). Due to the vast differences in educational systems, cultures and other extraneous factors, the language of the described educational systems may also vary. While the meaning of terms may be evident, their usage may differ from country to country. Further, documents sometimes provide different ages of entrance to compulsory education and different years of schooling in some countries. Such differences may be due to different ways of counting age and different times of starting the school year in the calendar year.

It should also be noted that finding information on countries other than the U. S. was not always very easy. We generally had to rely on the International Encyclopedia of Education (both the 1985 and 1994 editions) and the Statistical Yearbook (United Nations Educational, Scientific and Cultural Organization [UNESCO], 1992) for information. In the following discussion on the formal education systems of the 14 countries, the information in the charts (e.g., age of entry, duration of schooling) was derived from the Statistical Yearbook (UNESCO, 1992). When information was incomplete or seemed quite dated, we made telephone calls to the country's embassy in the U. S., and then often followed this with calls to their respective attachés for education. Still, we often thought we did not have the most current information. With limitations, this study presents the overview of the 14 countries' educational and assessment systems.

Argentina

Argentina is located in the southern part of South America. It has a total land area of 1,068,298 square miles (2,766,890 square kilometers) (excluding Falkland Islands and Antarctic territory), and its total population is 33,533,256, according to estimates in 1993 (Wright, 1995). The majority of the population (more than 90%) is of Spanish or Italian origin (Petty, 1994). Almost half of the labor force is employed in the service sector. Major industries are food processing and motor vehicles (Wright, 1995).

General education system. In Argentina, the preprimary and primary educational system was decentralized in 1978, and it is now in the control of provincial governments. The Ministry of Education has planned to decentralize secondary education since 1993. However, when it comes to financial allocations for public schools, the government still takes responsibility.

Primary schooling is obligatory for all children in Argentina. Compulsory education is provided for students from ages 6 to 14. Argentina's people seem to prefer private schools or Catholic organizations rather than public education. This may be related to the government's effort to support a low-quality, wide spread education. Argentina's education has been pestered by moderate dropout rates. Even in the primary schooling level, only about 60% graduate within a seven-year period. And about 90% of students stay in school for at least seven years. Repetition rate is 25% in the first grade of primary schooling, and 10 to 20% in other grade levels of primary schooling. Almost 50% of secondary school students drop out (Petty, 1994).

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	3		N
First-level	6	7	Y
1st stage of second-level	13	3	Compulsory until age 14
2nd stage of second-level	16	2	N
		3 or 4 *	

Note. Education preceding the first level means preprimary education, first-level education signifies primary education, and second-level education is divided into two stages of general secondary education: basic secondary and higher secondary (Petty, 1994).

* Years of schooling may vary (UNESCO, 1992).

Special education. Although Argentina has adopted a basic policy of integrating students with disabilities into general education settings, students who are blind, deaf, mentally impaired, or who have mental disorders are primarily still found in special schools. At the secondary level, protected workshops are provided for students from age 14 to 21 years, in an attempt to increase their employability (Petty, 1994).

Placement/tracking decisions. For secondary schooling, a decision is made about which major stream each student will take. *Bachillerato*, *Commercial*, and *Técnico* are three streams of secondary schooling. All secondary schools have a three-year basic curriculum. An additional two or three years of specialization provides specific additional areas of studies in each stream. Enrollment is largest in *Bachillerato* stream (Petty, 1994). In secondary schools, students are promoted to the next higher grade on the basis of grades and/or tests in subject fields. There are no nationwide examinations (Petty, 1985).

Assessment practices. In the early 1990s a national network was established through a REDUC (*Red Latinoamericana de Información Educativa*) center and educational statistics were collected up to 1987. However, "there is no form of established assessment. Very little research is conducted on a nationwide basis" (Petty, 1994, p. 337). In the most recent edition of the International Encyclopedia of Education (Petty, 1994), there is no discussion about either whether students with disabilities are included in or excluded from assessment procedures or whether any accommodations in assessment procedures are allowed for those students with disabilities who might be participating in assessments.

Reporting of results. In the International Encyclopedia of Education, no discussion is made about Argentina's policies and practices concerning reporting of assessment results. Further, no reference is made to scoring or reporting of results for students with disabilities.

Australia

Australia is an island continent located between Southeast Asia and the South Pacific. The population is predominantly European in its origin, and the institutional system is British (McKenzie, 1994). Its land mass is 2,967,897 square miles (7,686,850 square kilometers). Australia is slightly smaller than the U.S.A. The total population was estimated as 17,827,204 in 1993 (Wright, 1995).

About 70% of the workforce currently works in the service-industry sector (McKenzie, 1994), and major industries include mining, industrial and transportation equipment (Wright, 1995).

General education system. Education in Australia is the responsibility of the individual States and Territories that form the Commonwealth. Until 1975 all states used inspectors to monitor the quality of public schools and teachers, although the inspectorate system has weakened since then (McKenzie, 1994). A public school system is operated by each state government. School systems differ from state to state in terms of curriculum, methods of assessing student achievement, and policies about the education of students with disabilities. There is neither a national framework for schooling nor national curriculum or national credential to mark the end of secondary school. No regular national testing of student performance is conducted (Ruby, 1990).

Preprimary education, which is not compulsory, starts at the age of 4 (UNESCO, 1992). Compulsory education is offered to children at the ages of 6 to 15 (or age 16 in Tasmania) (McKenzie, 1994). Primary education lasts for either six or seven years, depending on the state. Secondary education is available for either five or six years depending on the length of primary education in the state. In the past, beyond the minimum school-leaving age of 15 (or 16 in Tasmania), school participation rates declined markedly and male adolescents were employed or receiving part-time education through apprenticeships at a TAFE (Technical and Further Education) college. Since the 1980s the proportion of students remaining in school beyond the minimum school-leaving age of 15 has increased (McKenzie, 1994).

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	4		N
First-level	6	6	Y
	5 *	7 *	
1st stage of second-level	12	3	Y
2nd stage of second-level	15	3	Compulsory until age 16

Note. Education preceding the first level means preschool education, first-level education signifies primary education, and second-level education is divided into two stages of general secondary education: junior and senior secondary schools (McKenzie, 1994).
* Age of entry and years of schooling may vary (UNESCO, 1992).

Special education. Special education is provided for students with physical or intellectual disabilities in regular classes, regular schools, special classes, special schools, at home or in institutions. With the current emphasis on mainstreaming students with disabilities into general education settings, the proportion of students in special schools has declined (McKenzie, 1994).

In an attempt to integrate students with disabilities into regular education settings to a greater extent, two new program elements were introduced in 1981. The Severely Handicapped Children's Program was established to provide funds to governmental and nongovernmental educational systems for children with severe developmental disabilities or children in long-term residential care, and the Early Special Education Program provides educational services for young children with disabilities (Australian Government Publishing Service, 1985). In spite of these efforts, in Australia there have been obstacles to such efforts to integrate students with disabilities into general education settings. Lack of consistent

diagnostic criteria has made it difficult to identify students (OECD, 1994). Hence, it is hard to find a systematic and consistent set of data on prevalence figures for students with disabilities.

Placement/tracking decisions. In the past, external assessment was extensively used to make decisions on student placement. However, there is no national credential to mark the end of secondary schooling, and there is no regular national testing of student performance (Ruby, 1990).

The first formal qualification is made at the end of Year 10, based on the results of internal school assessment, but a higher school certificate is given based on an external examination given at Year 12 (McKenzie, 1994). In the Australian Capital Territory (ACT) and Queensland, the external examination of Year 12 has been replaced by an accredited internal school assessment (McKenzie, 1985). The results of assessment at the end of Year 12 are usually used by higher education institutions to select students. In addition to the norm-referenced assessment of student achievement, there is increasing use of criterion-referenced assessment and teachers' judgments (Australian Government Publishing Service, 1985; McKenzie, 1994).

Currently, promotion in primary and secondary schools is made by age. Students automatically progress from one grade to the next each year and from primary to secondary school, regardless of students' success or failure during the year. Therefore, at the transition from primary to secondary, repeating a grade is unusual.

Decisions about streaming of secondary schooling are made depending on each state's educational system. Victoria has operated a dual system consisting of general high schools and technical schools. Tasmania and the ACT have also adopted a system of separate institutions at the upper secondary level at Year 11 and 12. Other states operate a system of comprehensive secondary schools and do not have a system of streaming at the secondary level (Australian Government Publishing Service, 1985).

Assessment practices. States and the Commonwealth collaborate to develop a common format for the collection of data on schooling. Data on inputs and enrollment are usually collected on a national basis. However, it is the responsibility of each State and Territory to decide on appropriate ways of measuring educational outcomes, and which groups of students are included in the sample pool. Primarily, educational indicators are measured by each state's different system (Ruby, 1990). The Schools and Curriculum Division of the Australian Department of Employment, Education and Training states that the primary responsibility for the education of all children, including those with disabilities, lies with State and Territory governments.

Although Australian assessment activities are mainly the responsibility of each State and Territory, the Commonwealth is currently involved in developing a number of performance indicators for a small project involving non-school organization service providers in the Australian Capital Territory in 1994. The following performance indicators are an example of what will be used to measure the effectiveness of the services provided in this project:

- levels of school attendance,
- educational performance and confidence of participating students,
- levels of social, cognitive and language skills in hearing impaired students,
- access to and participation in recreational activities,
- awareness of leisure and social skills leading to enhanced integration,
- levels of gross and fine motor skills.

Keeping in mind that each service provider has different educational objectives and service, the users of these indicators are advised to take caution in the comparison of outcomes across various services.

Since the late 1980s, many attempts have been made to assess student achievement (McKenzie, 1994). In 1975 and in 1980, the Australian Council for Educational Research (ACER) and the State Department of Education were involved in assessing literacy and numeracy of both 10- and 14-year-old national samples in general education programs. This was the only systematic attempt to monitor student

achievement at the national level (Australian Government Publishing Service, 1985). Considerable opposition to nationwide large-scale assessment activities prevented this national testing program in literacy and numeracy from continuing. However, ACER continues to conduct national tests of student achievement in math and science as part of the IEA's international studies (McKenzie, 1994).

In addition to assessing student achievement for the purpose of monitoring student learning and deciding student placement, holding educational systems accountable for the purpose of providing quality education for students with disabilities has been an issue since the 1980s. Data have been collected to address the accountability of the educational systems.

Statistics and data on students with disabilities are collected through each state's own categorization criteria. However, in the most recent edition of the International Encyclopedia of Education (McKenzie, 1994) no discussion is made about whether Australia has criteria for inclusion of students with disabilities in large-scale assessment processes. Further, no information is found regarding accommodations of testing procedures or formats for students with disabilities in large-scale assessments.

Reporting of results. In Australia, neither nationwide large-scale assessments nor reporting each individual student's achievement is welcome. The results of assessment at the end of Year 12 are usually reported as an overall ranking of all students, and they do not provide an indication of each student's actual level of achievement (Australian Government Publishing Service, 1985).

Each state provides a public annual report on educational outcomes, along with funding arrangements made by the Commonwealth. Since the 1982 States Grant Act (Schools Assistance), the Commonwealth also has tried to gather information on how its funds are used, but it has not collected outcome data. Australia's lack of interest in collecting outcome data on a national basis is well described in the Report of the Quality of Education Review Committee (Australian Government Publishing Service, 1985). There were few data on outcomes and no established mechanisms for systematically recording outcome information.

Although national testing has not been welcome in Australia (Ruby, 1990), the first national report on schooling was published in 1990 as an attempt to stimulate national approaches to student assessment. The report is to be published on a regular basis. Federal and state education authorities are to be involved in documenting resource levels and student outcomes (McKenzie, 1994).

Canada

Canada is the second largest country in the world in terms of land mass. It is located in the northern part of North America and excludes Alaska and Greenland. Its land mass totals 3,851,794 square miles (9,976,140 square kilometers), and its population was estimated over 27 million in 1993 (Wright, 1995). Canada is slightly larger than the U.S. Canada is a federal state, which consists of ten provinces and two territories. A national system of education does not exist in Canada (Berg, 1994).

Cultural backgrounds are diverse. Greater than 60% of Canada's population live in Ontario and Quebec where the primary language is English and French, respectively (Berg, 1994). The Canadian economy was originally dominated by agricultural and resource-based industries. Currently the majority of the labor force (about 75%) is employed in service industries, and Canada's major industries include minerals, food products, wood and paper products (Wright, 1995).

General education system. "There is no such thing as the Canadian educational system" (Blair, 1985, p. 630). Standards are set at the provincial rather than at the national level (U.S. General Accounting Office [U.S. GAO], 1993). There is no uniform, nationwide educational system or curriculum. The educational system depends on each province, and within a province many different school systems exist (Blair, 1985).

Schooling starts at the age of four, but this is not compulsory. Compulsory education starts at the age of 6 and continues until the age of 16 (UNESCO, 1992). In contrast to elementary education, secondary education is differentiated into composite or vocational types (Blair, 1985). Most secondary schools are composite and offer a wide range of courses, including not only academics but also business and technical courses. Graduates from composite schools usually go to universities or colleges or may want to get a job. Most graduates from vocational secondary schools are employed.

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	4		N
First-level	6	6	Y
		8 *	
1st stage of second-level	12	3	Y
	14 *		
2nd stage of second-level	15	3	Compulsory until age 16
		4 **	

Note. Education preceding the first level means preprimary education, first-level education signifies primary education, and second-level education is divided into two stages of general secondary education: junior and senior secondary (Berg, 1994).
* Age of entry and years of schooling may vary.
** The second-level general education is offered in three different ways: (a) junior secondary schooling is offered for three years and senior secondary schooling for another three years, (b) junior secondary for three years and senior secondary for four years, or (c) the combined second-level education is offered for five years (UNESCO, 1992).

Special education. As the system of general education varies from province to province, so do the policies and legislation regarding special education. Special education is the responsibility of each province. Funding is arranged and provided at the discretion of each province. Due to such province-by-province variability, progress has not been made across provinces, to an equal degree, in terms of mandating special education services for all students with disabilities or identifying those eligible students (Hutchinson & Wong, 1987).

Children with disabilities are educated in special schools, special classes, or general education classrooms. Although students with special needs have been integrated into general education classrooms as much as possible since the 1970s, there also exist separate schools for categories of disabilities. Special schools usually serve students with mental, visual, or hearing impairments (Berg, 1994).

Placement/tracking decisions. Continuous progress is emphasized in elementary schools; however, at the secondary level, promotion is made by subject rather than by grade (Berg, 1994). Until the 1960s, students had to pass compulsory, province-wide departmental exams in order to graduate from high schools. Currently, classroom teachers and principals play an important role in making decisions about students' graduation from secondary schools. A final decision is based on overall school performance and local school test results.

Assessment practices. At least since the 1960s, provincial exams have been abolished or decreased; however, they are being revived in an attempt to set provincial achievement standards (Blair, 1985). Tests are tied to each provincial curriculum, and provincial tests are used to assess student achievement in subject areas or to certify students' mastery of high school courses (U.S. GAO, 1993).

As mentioned earlier, Canada does not have a nationwide educational system or national curriculum. However, Canada has developed a Canada-wide national assessment as part of a national indicator project (U. S. GAO, 1993). The development and use of this nationwide, large-scale assessment reflects Canada's increased interest in the overall assessment of the effectiveness of provincial educational systems and the comparison with the data from international studies (e.g., TIMSS). In 1989, the Council of Ministers of Education in Canada developed the School Achievement Indicators Program, which provides data to assist each province and territory in making policy decisions and planning programs. Indicators of student participation, graduation rates, and the achievement of 13- and 16-year-old students in reading, writing, and mathematics are included in the Canada-wide national assessment (Berg, 1994).

Along with the recent emphasis on the measurement of educational outcomes through the assessment of student achievement, educational assessment focuses on the evaluation of programs, teachers, schools, and school systems. At the elementary level, some provinces have undertaken large-scale student testing in specific subjects at selected grade levels to evaluate both students and schools.

Criteria for including or excluding students with disabilities in large-scale assessments are not discussed even in the most recent edition of the International Encyclopedia of Education (Berg, 1994). However, some students with disabilities seem to participate in the assessments, and accommodations are allowed in testing for students with disabilities. Examinations are modified to accommodate students with physical or learning disabilities, members of a linguistic minority, or those who are in crisis (U. S. GAO, 1993). A board of examiners or a provincial education agency makes decisions about accommodations needed for students with disabilities. Some of the accommodations allowed are as follows (U. S. GAO, 1993):

1. Examinations are prepared in both English and French;
2. Students are excused from writing examinations when they have illness, accident, or bereavement;
3. Difficulty levels of examinations are tailored to individual students when a specific subject is a general graduation requirement for all students;
4. Different examinations are tailored for the basic and academic English courses in British Columbia and Alberta;
5. Students voluntarily participate in most examinations except tests for college-bound students;
6. Students are provided with multiple opportunities either to retake competency-based examinations without repeating a course or to repeat the course and then retake the exam;
7. When examinations are retaken, the highest grade is recorded on the student's transcript.

Reporting of results. Provinces do not attach high stakes to tests (U. S. GAO, 1993). In order to prevent test results from being misused as an evaluation of individual teachers and students, test scores are aggregated before they are reported. Despite such safeguards, it is difficult to find data on how the achievement results of students with disabilities are dealt with in the process of reporting the assessment results.

Chile

Chile is located along the southwestern coast of South America. The mountainous country covers 292,259 square miles (756,950 square kilometers), and its estimated population reached approximately 13,739,759 in 1993 (Wright, 1995). Major industries include copper and other minerals, foodstuffs, and fish processing. In recent years, the labor force working in the service sector has increased. About 38.6% are employed in the service sector and about 31% in industry and commerce areas (Wright, 1995).

General education system. In Chile, young children aged 0 to 6 are educated under the voluntary three-level, pre-primary schooling system: nursery, middle level, and transition. Entrance age to preprimary education is 5, but education before the first-level of schooling is not compulsory.

Compulsory education starts at the age of 6 (primary school) and continues for eight years (UNESCO, 1992). The first four years of primary schooling provide basic education.

Since the 1980s, more varied alternatives have been provided at the post-primary level for the purpose of meeting the needs of the labor markets. Basically, the four years of secondary school has two branches, academic and vocational and both have the same right to the university (Rodriguez, 1994). The two years of the lower-level general secondary education is offered from grade 9 to 10. Then, students choose between another cycle of two more years of general academic education or vocational training.

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	5		N
First-level	6	8	Y
1st stage of second-level	14	2	N
2nd stage of second-level	16	2	N

Note. Education preceding the first level means preschool education, first-level education signifies primary education, and second-level education is secondary schooling (Rodriguez, 1994).

Special education. As in other countries, in Chile the major purpose of special education is to integrate students with disabilities into general education settings. Experts in the Ministry of Education diagnose students with special needs in such areas as learning difficulties, communication disorders, vision impairment, mental retardation, and motor difficulties. Despite the integrative principle of special education, most students receiving full-time special education programs are found in special education units because there are few general education institutions that can integrate those students (Rodriguez, 1994).

Placement/tracking decisions. Student promotion decisions are usually made by teachers. Students are evaluated on their performance in learning objectives in specific subject fields. Nationwide examinations are held to select candidates for universities. These examinations consist of a battery of tests, including an aptitude test (verbal and mathematical reasoning), and several achievement tests in the subject areas to be studied. Except for these examinations, no examinations exist to pass from one level of the system to another (Rodriguez, 1994).

Assessment practices. In Chile, school outcomes were evaluated through Programa de Evaluación de Rendimiento in 1982-84. Since 1988, the Ministry of Education has administered a nationwide examination to all students in Grades 4 and 8. The results of the educational process are annually diagnosed in terms of the attained objectives. All students in Grades 4 and 8 participate in multiple-choice tests in Spanish and mathematics, but only a sample of them participate in testing of history, geography and natural science. This system of educational assessment also includes indicators of student personal development, school efficiency, dropout rates, and the number of years studied (Rodriguez, 1994).

In the most current edition of the International Encyclopedia of Education (Rodriguez, 1994), no discussion is included on criteria for inclusion or exclusion of students with disabilities in large-scale assessments and about accommodations in testing for students with disabilities.

Reporting of results. The Ministry of Education collects and regularly publishes information on educational indicators such as enrollments, attendance, quality of education, human and financial resources, achievement of academic objectives, and illiteracy rate (Rodriguez, 1994). The percentage of achievement on each one of the objectives is reported to every school. The results show how much students in each class have obtained the objectives. These results provide school-by-school comparisons as well as the relative position of each school in comparison to national outcomes. Recommendations as well as results are provided to schools, in an attempt to help each school improve its education. The results are also used to allocate material and human resources to lower-achieving schools in poverty areas (Rodriguez, 1994).

Data on educational inputs, resources and outcomes are collected, but it is not clear whether Chile has established any criteria or procedures about how to deal with students with disabilities in the process of reporting the data and the assessment results.

China

China is located in the eastern part of the Asian continent. China's total land mass is approximately 3,705,392 square miles (9.6 million square kilometers), and its population was estimated at 1,177,584,537 in 1993 (Wright, 1995). China consists of 56 nationalities (Teng, 1994). Major industries are iron, steel, and coal (Wright, 1995). Approximately 60% of the labor force work in the agriculture and forestry sectors (Wright, 1995). However, the proportion of the agricultural labor force has decreased while the industrial and service sectors have increased.

General education system. The general educational system in China consists of basic education (i.e., preschool, primary, and secondary schooling), technical and vocational education, higher education, and adult education. Education in China is the responsibility of both national and local administration. Since the early 1980s, the educational management system in China has been decentralized and local autonomy has been established. Basic education has been the responsibility of local authorities since 1985 (Teng, 1994). However, education authorities at a centralized level still exist for the planning of educational development programs and budgets.

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	3		N
First-level	7	5	Y
	6 *	6 *	
1st stage of second-level	12	3	Y
2nd stage of second-level	15	2	Compulsory until age 16
		3 *	

Note. Education preceding the first level means preschool education, first-level education signifies primary education, and second-level education is divided into two stages of general secondary education: junior (middle) and senior (high) schools (Teng, 1994).
* Age of entry and years of schooling may vary (UNESCO, 1992).

In 1986, the National People's Congress stipulated a total nine years of compulsory education, covering primary and lower-level secondary schooling. Since then, compulsory education starts at the age of 7 and continues for nine years until the age of 16. Entrance age to preprimary education is 3, but it is not compulsory (UNESCO, 1992).

Special education. The right of students with special needs to an appropriate education was explicitly recognized in the constitution of 1947. Regulations concerning the expansion and improvement of special education were formulated in 1970. They spelled out the following seven categories of disability: mental retardation, visual impairments, hearing impairments, speech disorders, orthopedic handicaps, chronic diseases and physical delicacy, and emotional and behavioral disorders. In 1977 an amendment added learning disabilities to the disability categories. However, due to political turmoil during the Cultural Revolution from 1966 to 1976, special education services and the number of students in special schools decreased (Yang & Wang, 1994). Since then, special education in China has been revived.

The educational rights of students with disabilities are protected under the 1986 Compulsory Education of the People's Republic of China and the 1990 Law of the People's Republic of China on the Protection of Disabled Persons (Yang & Wang, 1994). The 1986 law, the first compulsory education law in China, made it possible to provide nine years of free education for all children, including children with disabilities. The 1990 law furthered the development of special education in China and guaranteed equal rights in receiving education.

Four kinds of programs are available to special education students: regular classes plus special services; part-time or full-time special classes; special schools; and instruction by itinerant teachers in hospitals, custodial institutions, or at home. Placement is determined by a diagnostic team of doctors, school psychologists, special educators, and school administrators. In making decisions of student placement, family situations and parental opinions are also considered. After students with disabilities are placed in certain educational programs, they are reevaluated periodically. Efforts are currently being made to place students with disabilities in integrated educational environments.

Special education in China has developed rapidly since the end of the Cultural Revolution. However, further development of the special education system has been stagnated mainly because of two problems: (a) viewpoints about special education as social welfare services, and (b) lack of staff members who are qualified for providing quality special education (Yang & Wang, 1994).

Placement/tracking decisions. Information about China's policies or procedures regarding decision-making in placement or streaming is not available. Even in the most recent edition of the International Encyclopedia of Education (Teng, 1994), no discussion is made about placement or tracking decisions.

Assessment practices. In China, the reputation and public ranking of each school is determined by the performance of its students on national examinations. No discussion is made about specific regulations or criteria for including or excluding students with disabilities in the national assessments (Teng, 1994) . However, due to the high-stakes involved in assessment, special education students are often considered educationally subnormal and thus a liability to the status of the school. There is lack of information about accommodations in testing for students with disabilities.

Reporting of results. The assessment results of students with disabilities and respective scoring and reporting of the results are not indicated in the International Encyclopedia of Education (Teng, 1994).

England and Wales

England and Wales are located in northwestern Europe. Total land mass, including the United Kingdom of Great Britain and Northern Ireland, covers 94,525 square miles (244,820 square kilometers), and the total population was estimated at 57,970,200, in 1993 (Wright, 1995). Major industries are

machinery and transportation equipment (Wright, 1995). Slightly more than 50% of the labor force works in the service sector; approximately 25% work in manufacturing and construction (Wright, 1995).

General education system. The United Kingdom has three separate statutory systems of public education: for England and Wales, Scotland, and Northern Ireland. The education system in the United Kingdom is described as "national, but locally administered" (Halls, 1994, p. 6518).

In England and Wales the educational system is characterized by its decentralized responsibility. In England, the Secretary of State for Education is responsible for educational policy including monitoring the quality of schooling and allocating the grant to local education authorities; and education in Wales is the responsibility of the Secretary of State for Wales (Hegarty, 1994). The English and Welsh education systems are different only in the inclusion of the Welsh language and Welsh elements in the national curriculum. The Department for Education is responsible for education, including all universities; however, local education authorities are directly involved in running schools and an inspectorate comprised of professionals also has direct contact with schools (Halls, 1994).

Since the 1944 Education Act, public primary education has been provided for children from the age of 5 to between 11 and 12. Secondary education is arranged for children aged from 11 to 18 years.

Compulsory education begins at the age of 5 and lasts for 11 years until the age of 16 (Halls, 1994; UNESCO, 1992). Voluntary nursery education precedes the first-level education. Nursery schools admit young children from the age of 2, and nursery classes attached to primary schools admit children from the age of 3. Primary education consists of infant education and junior education. Children enter the infant stage at the age of 5, and they leave the infant department and enter the junior department between the ages of 7 and 8. Junior pupils can conclude primary education as early as the age of 10 years 6 months and must leave primary education before the 12th birthday (Dent, 1982).

With regard to secondary education, Halls (1994) provides somewhat different information from that presented in the UNESCO Statistical Yearbook (1992). According to Halls (1994), secondary education consists of a minimum five-year course or an alternative seven-year course. Except for some academics-oriented grammar schools, schooling at this level is comprehensive. Students at the age of 16 to 19 go to secondary schools, called sixth forms, or to colleges of further education (Halls, 1994).

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	3		N
First-level	5	6	Y
1st stage of second-level	11	3	Y
2nd stage of second-level	14	4	Compulsory until age 16

Note. Education preceding the first level means preschool education, first-level education indicates primary school education consisting infant and junior departments, and second-level education indicates general secondary education (Halls, 1994).
The above information, which was drawn from Statistical Yearbook (UNESCO, 1992) is based on the education system in the United Kingdom only.

Through the 1988 Education Act, the national curriculum was introduced. English, mathematics, and science were designated as three core subjects and seven other subjects as foundation subjects (Hegarty, 1994). For each subject, learning objectives are established as attainment targets, and programs of study are also specified as learning experiences for attaining the targets.

Special education. The Education Act of 1944 expanded the limits of special education treatment in order to provide appropriate special education services for children with physical or mental handicaps. Further, in 1980, the British Government replaced 10 categories of disabilities with a comprehensive assessment of needs.

According to Woll (1987), "the United Kingdom has had special schools for over 200 years and legislation for special education since 1893" (p. 1608). Special education in the United Kingdom followed the medical model, thereby diagnosis and classification of disabilities were a main duty of special education professionals. Another current issue is how to educate children with disabilities in regular education settings as much as possible. The national policy to educate children with disabilities in general education settings was given statutory sanction by Section 10 of the Education Act 1976 (Dent, 1982). Also, the Warnock report, published in 1978 has increased efforts to integrate children with disabilities into "normal" schooling and to view educational practice and related problems from the standpoint of educational needs of all students (OECD, 1994). In particular, the implementation of the 1981 Education Act has allowed a large number of students with hearing impairments and deaf students to be integrated into mainstream schools (OECD, 1994).

The 1981 Education Act objects to the use of classification. Instead of employing disability categories, the Act recommended to assess special education needs (Hegarty, 1994). Either the school or local education authority is responsible for educational provision, depending on the severity and complexity of the student's special education needs. Woll (1987) provided the 1981 Education Act's definition of special education needs:

> ...a learning difficulty which calls for special education provision to be made for him....A child has a 'learning difficulty' if: (a) he has a significantly greater difficulty in learning than the majority of children of his age; or (b) he has a disability which either prevents or hinders him from making use of educational facilities of a kind generally provided in schools within the area of the local authority concerned, for children of his age (p. 1609).

Although the local education authority is expected to be minimally involved in special educational provision, the local authority is responsible for identifying children with special education needs. The local authority should conduct a formal assessment and obtain educational, medical, and psychological advice from teachers and professionals (Hegarty, 1994).

According to Woll (1987), there are three different levels of special educational agencies. Up to the age of three, primary schools provide educational services for children with severe problems. Legally, education begins at birth if parents or medical professionals request it. Local education authorities are responsible for discovering special education needs from the age of 2. In the school years, classroom teachers as well as children with disabilities receive support. In the post school years, emphasis is placed on transition to adult society.

In England, individualized educational programs are called "individualized programmes of work" or "individual curricula" (OECD, 1994). According to the guidelines published by the United Kingdom Ministry of Education and Science in 1983, a student's individualized educational program is written as part of the student's curriculum, which is classified into three types: ordinary curriculum with support, ordinary curriculum with modifications, and developmental curriculum for autonomy and social skills (OECD, 1994).

Placement/tracking decisions. In England, there has been a triple-track system of education, which places each student into one of the ordinary series of A, B, and C classes based on the student's intellectual ability. In the 1980s, only a few junior schools were streaming pupils based on the student's

ability and grouping students into classes of equal ability. During the last year in primary education, children take the "11 plus" test to ensure appropriate selection for secondary education (Dent, 1982; Nuttall, 1990). Although this test has been used less, it did not disappear until the end of 1980 (Dent, 1982).

Nuttall (1990) regards England as "one of the very few nations that still has an elaborate system of public examinations" (p. 373). Examinations are administered at the ages of 16 and 18, and the results are primarily used for the purpose of assessing the achievement of individual students and selecting students who are eligible for the next level of education. Lately, these public examinations have been also used to assess the effectiveness of educational institutions.

Assessment practices. Before the 1988 Education Reform Act, examining boards, which are independent of the government, administered examinations to students at ages 16 and 18. However, their examination certificates had to be certified by the government. The 1988 Act made changes in assessment and testing in schools. The Act proposed that the national government specify a national curriculum, and a national attainment assessment be introduced for all children at ages 7, 11, 14, and 16 (Black, 1994; Halls, 1994; Hegarty, 1994). For the purpose of addressing public concerns about accountability as well as improving student learning and teaching quality, the Task Group on Assessment and Testing (TGAT) has been involved in the development of strategies for national assessment and the reporting of assessment results (Black, 1994). According to some recommendations by the TGAT (Black, 1994; Nuttall, 1990), the national assessment should:

1. Be based on a combination of teacher assessment and external tests (called standard assessment tasks);
2. Be criterion-referenced;
3. Be formative;
4. Represent a small number of domains in each subject rather than reporting a single score of each subject;
5. Be based on a national scale for the comparisons of schools and individual students;
6. Pinpoint progress through curriculum across the four prescribed ages as staged targets rather than designating each age as a terminal target.

However, the TGAT recommendations were rebuked by the assessment council, called the Schools Examination and Assessment Council (SEAC). Instead of the TGAT recommendations, separate assessment of each attainment target with a number of criterion statements was suggested.

In 1990 and 1991, children aged 7 took the first large-scale trials of the new Standard Assessment Tasks (Black, 1994). In 1992, the first national tests for 14-year-old students were given in mathematics and science. In fact, the Standard Assessment Tasks results were preferred to teacher assessment in the national assessment of students aged 14. From 1993, English and technology were added as were history and geography in 1994. However, some problems were recognized and the national assessment was not implemented in 1993 (Black, 1994). Problems usually centered on the logistical difficulties in reconciling both the results of teacher assessments and external tests as well on the additional load imposed on teachers.

For accountability purposes, teacher performance is also assessed by the School Examinations and Assessment Council. The assessment of teacher performance is carried out by their peers (Halls, 1994).

Reporting of results. Information about student performance in each of the subjects of the National Curriculum is used to provide consumers with data about learning progress and to require greater accountability of educational institutions. Achievement in eleven subjects in the curriculum are reported at the ages of 7, 11, 14, and 16 (Halls, 1994; Nuttall, 1990).

The results of public examinations have been made public school-by-school and the 1988 Education Reform Act has facilitated this process. In the data reporting phase, the performance of

individual children is aggregated and reported for each classroom and each school (Nuttall, 1990). According to the TGAT recommendations:

1. Assessment results in each subject should be reported in aggregated form as profile components, which represent achievement in several domains of the subject rather than a single score;
2. Assessment results should not be published at the age of 7;
3. Assessment results should be available only to the student older than 7 and the parents;
4. Overall school performance should be published along with the LEA's interpretation of the results (Black, 1994).

The 1978 Warnock Report agreed to segregate data about special education students at the national level. Attempts have been made not to count the number of special education students, but data about students with disabilities are included in at least the record-keeping attempts at the local level (OECD, 1994). The most recent edition of the International Encyclopedia of Education (Halls, 1994) does not discuss how students with disabilities are dealt with in the data-reporting process. It is not clear how England currently reports the data collected from special education students.

France

France is the least densely populated but largest Western European nation, covering 176,460 square miles (457,030 square kilometers). France's total population was estimated at 57,566,091 in 1993 (Wright, 1995). Major industries are steel, machinery, textiles and clothing. Approximately 60% of labor force works in the service sector, while 30% works in industry (Wright, 1995).

General education system. France has a strong public system of education, which is characterized by a tri-partite system consisting of primary schools, *collèges*, and *lycées*. Primary schooling (*L'école primaire*) is provided for 5 years, and is divided into CP (*Cours Preparatoire*), CE1, CE2 (*Cours Elementaire*), CM1 and CM2 (*Cours Moyen*). Three cycles of elementary education and school-learning examinations were established under the Education Law. Children are taught basic skills as stated in the national syllabi.

Students at *collèges* between the ages of 11 and 15 first enter into the observation stage during the first two years of secondary school. Streaming does not exist at this stage and all students learn under the common core curriculum. Then, children enter into the orientation stage in the third and fourth years of secondary education. The common curriculum of the *collège* is provided for students who want to continue their studies at the *lycée* for the *baccalaureat* (Lewis, 1985). Those who do not want to remain in the academics-oriented stream can take vocational classes. At the end of the four years of the *collège*, students who have been advised to go on a *lycée* or to do advanced studies in an LEP (*Lycée d'enseignement professionnel*) may apply for a *brevet d'études du premier cycle*, which is awarded by a jury without further examination. Otherwise, students must pass an examination.

In the second stage of secondary schooling after the age of 15, three-year courses are provided in the *lycées*. Some cover only the non-technical subjects and others offer technical courses such as *lycées d'enseignement technique*. Students take the *baccalaureat*, which function as both a school leaving examination and an entrance examination to higher education. Based on the concentration area of studies, five general *baccalaureats* (A-E) have 11 different options and three *baccalaureats de technicien* (F-H) have 16 options. Those who barely missed the passing cutoff score are provided with a second chance of taking an extra oral exam. If they do not succeed at the second attempt, they are awarded a consolation prize, called *Certificat de Fin d'Études Secondaires* (CFES) (Holmes, 1983).

Education preceding the first level starts at the age of 2. Compulsory education starts at the age of 6 and lasts for ten years until the age of 16 (UNESCO, 1992).

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	2		N
First-level	6	5	Y
1st stage of second-level	11	4	Y
2nd stage of second-level	15	3	Compulsory until age 16

Note. Education preceding the first level means preprimary education, first-level education signifies primary education, and second-level education is divided into two stages of general secondary education: college is the first cycle, and lycée is the second cycle of secondary education (Monchablon, 1994).

Special education. The principle of compulsory education for all students, including students with disabilities, was established by the 1882 Compulsory Education Act. However, it is only recently that the principle of integration was accredited. Compulsory education for all students with disabilities was ratified by the law of July 31, 1975 (Braswell, 1987). The Orientation Law of 1975 ordered the mandatory education of students with disabilities in the least restrictive setting without cost to students. The Departmental Center for Special Education takes responsibility for determining the least restrictive environment for students whose needs cannot be met in general education settings (Tyszka, 1993). This includes not only physical and material adaptations made in the educational environment but also teacher training, no matter what the nature and degree of disabilities the student has (OECD, 1994). Circulars of 1982 and 1983 extended the population covered to include students with emotional or behavioral difficulties.

Underachieving students are provided with a chance of being integrated in the mainstream through the *classes de transition.* Transition classes are usually attached to secondary schools to provide assistance for students who have been excluded from secondary education because they did not progress enough to leave the primary school. If skills are not sufficient, students repeat years instead of automatically promoting to the next year.

Children from the age of 12 to 16 who have an IQ between 65 and 80 are served in remedial education sections (*Sections d'éducation spécialisée, SES*) which are attached to *collèges.* Decisions are made by a committee of people, called the *Commission de circonscription du second degré,* including teachers and parents. Students under the age of 14 primarily receive general education; however, students over the age of 14 are given alternatives and usually receive pre-vocational or vocational education as well as general education. Although these students are allowed to be re-integrated into an LEP (*Lycée d'enseignement professionnel*) or study for a CEP (*Certificat d'éducation professionnelle*) (Lewis, 1985), they may not be advised to go on to a *lycée.*

There is no universally standardized classification system of special education categories in France. French special education is an intervention on a student's environment and is not dictated by disability. Special education program options are provided in preschools, primary schools and secondary schools as follows (Tyszka, 1993):

1. Pre-school: Improvement Classes are offered to 2-1/2 to 6-year-old children who are mentally, physically, emotionally, or behaviorally impaired;

2. Primary school: Improvement classes, adaptation classes, and multi-disciplinary team services are provided for students with mental impairment, learning disabilities, or behavioral impairment;

3. Secondary school: Program options include adaptation classes, multi-disciplinary team support, and Special Education Sections (SES). SES classes are not located in regular school buildings. These classes offer vocational training as well as general education. Those who cannot learn in normal academic settings attend National Improvement Schools, which are physically separated from regular secondary schools. Adaptation classes are offered on a temporary basis.

Placement/tracking decisions. Secondary education is characterized by the three alternatives provided at the age of 11. One alternative is for students who desire to remain at the *collège*, go to a *lycée* and take a *baccalaureat*. The *lycée* is the only alternative that makes it possible for students to get higher education via *baccalaureat* at the age of 18. A second alternative is that children stay at the primary school, prepare for their Primary Studies Certificate, and then leave to find or train for a job. The third alternative is that children take an exam at the age of 11 and enter into the *cours complémentaire*, which is an extension of the primary school. These students work to prepare for BEPC (*Brevet d'études du premier cycle*). Although it is possible for students with BEPC to transfer to a *lycée*, it is unusual.

Students who choose not to remain in the mainstream *collège* studies are guided into pre-vocational or vocational classes at the end of the second year of the *collège*. During this orientation period, students choose to either go to pre-vocational classes or take an LEP (*Lycée d'enseignement professionnel*) to study for a vocational qualification (Lewis, 1985).

Assessment practices. The current educational evaluation in France is public-oriented, so the accountability of educational institutions is being considered important in the educational evaluation procedure (Meuret, 1990). For this purpose, school populations are assessed and focus is placed not on individual students but on schools (Meuret, 1990).

To assess student performance, teachers mark their students' work and make mock exams according to a well-worn pattern. To test general ability, the Ministry occasionally carries out national-level sample surveys. There are, however, two national surveys administered regularly. One evaluates reading ability at the end of primary education, and the other evaluates 14-year-olds' knowledge in economics just before they begin its study at school (Meuret, 1990). Currently under consideration is the assessment of student performance in basic skills at ages 10,12, and 14, the evaluation of the national educational system, and regularly conducted national sample surveys (Meuret, 1990).

According to Meuret (1990), the same standardized tests are used to assess performance of students in *Zones d'Éducation prioritaire*, in technical colleges (13-year-olds in *classe de 3e*), and students in GAPP (*Groupes d'Aide Psychopédagogiques*). Assessment of student performance on the standardized tests is combined with other techniques (e.g., questionnaires, interviews).

Students with disabilities are provided time extensions on their tests (Tyszka, 1993). However, no reference is made to criteria for inclusion or exclusion of students with disabilities in large-scale assessments such as the national sample surveys.

Reporting of results. When it comes to the French system of the assessment, accountability of educational institutions is one of the main concerns. Assessment results do not seem to be reported about individual students. Samples are selected from school populations in order to assess student performance; however, specific guidelines for the reporting of assessment results, particularly achievement of students with disabilities, are not found in the discussion of large-scale assessments.

Japan

Japan is located in the northeastern rim of the Asian continent and consists of more than 3,000 islands. Its total land area is 145,882 square miles (377,835 square kilometers), and it's estimated population in 1992 was over 124 million (Wright, 1995). Japan is a homogeneous country both ethnically and linguistically. It is a highly industrialized country with approximately 60% of the total employees working in the tertiary industry sector, and about 35% employed in Japan's secondary industry sector (Kanaya, 1994). Japan's main industries include metallurgical industries, electrical and electronic industries, and textiles (Wright, 1995).

General education system. In the Japanese education system, students receive compulsory education until the age of 15. Compulsory education begins at age 6 and continues for nine years (UNESCO, 1992). Preprimary education is offered in kindergarten or nursery school. Kindergarten encompasses children of 3 to 5 years of age. Nursery education is operated by social welfare institutions, catering to children up to 6 years of age. Those who complete elementary school proceed to the lower-secondary school, which is three years in duration and the second stage of compulsory education. The upper-secondary school is the second half of secondary education and is not compulsory. Upper-secondary schools are distinguished by the length of study period. Full-time schools offer education for three years, and part-time and correspondence schools for four years. Streaming starts at the stage of upper-secondary schooling, and approximately 75% of students enroll in a general course (Kanaya, 1994). Specialized courses include vocational, technology, math and science, and foreign languages. Higher education is provided in one of three categories: *Daigaku* (university), *Tanki-daigaku* (junior college), and *Koto-senmongakko* (college of technology) (Kanaya, 1994).

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	3		N
First-level	6	6	Y
1st stage of second-level	12	3	Y
2nd stage of second-level	15	3	N
		4 *	

Note. Education preceding the first level means preprimary education, first-level education signifies elementary school education, and second-level education is divided into two stages of general secondary education: lower secondary and higher secondary school education (Kanaya, 1994).
* Years of schooling may vary in the second stage of the second-level education (UNESCO, 1992).

Special education. The needs of students with disabilities have been addressed in three major laws: (a) the Law for the Welfare of Physically Disabled Persons (Law 283 of 1949), (b) the Law for the Welfare of Mentally Retarded Persons (Law 37 of 1960), and (c) the Mental Health Law (Law 123 of 1950). Before starting their school years, Japanese children undergo a medical examination that identifies those who have physical or medical disabilities (Cowen & McLean, 1984). Special schools for children who are blind or deaf have been compulsory since 1948, and schools for students with mental, physical,

multiple disabilities, or health impairments have been compulsory since 1979 (Kanaya, 1994; Rikhye, 1987).

Special education in Japan is usually provided in two forms: (a) special schools for students with disabilities, and (b) special classes within ordinary elementary and lower secondary schools. These are operated under the school system of the Ministry of Education (Rikhye, 1987). There are special schools for each age group: preschool, elementary, lower secondary, and upper secondary. Special schools provide special education for students with blindness, deafness, mentally retardation, physical impairments, and health impairments. Special classes at the elementary and lower secondary school level provide educational services for students with partial sight, hearing impairments, mental retardation, physical impairments, health impairments, speech impairments, and emotional disabilities. Students with more severe disabilities receive special education services at public and private daycare centers operated through the Ministry of Health and Welfare.

Placement/tracking decisions. In Japan, there is no external examination for the purpose of making decisions regarding promotion and certification of completion. Practically, grade promotion in compulsory education is automatic. However, legally, students are required to repeat a grade if they miss more than half the number of school days, their achievement is not satisfactory, or they misbehave. Promotion from elementary to lower-secondary public schools is also automatic (Kanaya, 1985). Decisions regarding graduation from the upper-secondary schools are made according to the total number of credits acquired and the approval of satisfactory achievement by the teacher. An entrance examination for public upper secondary schools is organized by the boards of education (Kanaya, 1994).

A National Center for University Entrance, sponsored by the Ministry of Education, organizes a nationwide test every January to assess the level of applicants' academic achievement acquired at upper-secondary schools and to make a decision about admission of students to universities. The final decision on admission is based on a combination of the achievement test scores, essay test scores, interview results, and the upper-secondary school report. For those students who have not completed an upper secondary school course, a University Entrance Qualification Test Scheme exists to grant qualification for university entrance to those who pass the test (Kanaya, 1994).

Assessment practices. The Ministry of Education occasionally conducts a nationwide scholastic achievement survey to census samples or probability samples. The National Institute for Educational Research, under the jurisdiction of the Ministry of Education, is affiliated with the IEA and conducts nationwide scholastic achievement surveys in specific subject areas, to compare student achievement at an international level. The National Institute for Educational Research covers all areas of education except special education, which is covered by the National Institute for Special Education Research (Kanaya, 1994).

There is no discussion of criteria for inclusion or exclusion of students with disabilities in large-scale assessments (Kanaya, 1994). No data are provided regarding accommodations for testing students with disabilities. Given the fact that research on special education is mainly the responsibility of a separate institute, it is doubtful that students with disabilities are dealt with in the assessment and accompanying procedures, and that special needs of students with disabilities are addressed in the assessment procedures.

Reporting of results. The assessment results of students with disabilities and respective data-reporting procedures are not indicated in the International Encyclopedia of Education (Kanaya, 1994).

Korea

The Republic of Korea is located in the eastern corner of the Asian continent. Its estimated population is 44,613,993 (in 1993), and it has a land area of 38,023 square miles (98,480 square kilometers) (Wright, 1995). It is a highly homogeneous country in terms of ethnic and linguistic background. Traditionally, the Korean economy was dominated by agriculture; however, the service and

industrial economy has developed recently. The major industries are textiles and clothing, footwear, and food processing (Wright, 1995).

General education system. In Korea, the 6-3-3-4 education system consists of 6 years of primary education, 3 years of junior high, 3 years of senior high, and 4 years of college. Except for primary schools, both public and private secondary schools have similar graduation requirements, receive governmental allocations, and charge similar tuition and fees established by the Ministry of Education.

Education preceding elementary school education starts at age 4 (UNESCO, 1992). The majority of 4- to 5-year-olds attend kindergarten before primary schooling or first-level education starts (Shin, 1994). Education is compulsory from ages 6 to 14 (Shin, 1994).

Students at the age of 12 are randomly assigned by lottery to one of the middle schools in their residential district. To gain enrollment to a high school, students must first pass a nationwide entrance examination. Then, they are assigned by lottery to a high school in their residential district. High schools are divided into two streams: (a) general, and (b) vocational and technical (Shin, 1994). In addition, there are special schools in music and fine arts and schools for gifted students in the area of science and math. Except for these schools, the curricula of high schools are very structured and there are few electives (Gannon, 1985).

The tertiary level of education comprises colleges, universities, junior colleges, teachers' colleges, the correspondence universities, and the open universities (Shin, 1994).

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N) *
Preceding first-level	4		N
First-level	6	6	Y
1st stage of second-level	12	3	Y
2nd stage of second-level	15	3	N

Note. Education preceding the first level means kindergarten education, first-level education signifies elementary school education, and second-level education is divided into two stages of general secondary education: middle and high schools (Shin, 1994).
* Except for compulsory education (Shin, 1994), the rest is based on the Statistical Yearbook (UNESCO, 1992).

Special education. There is no formal special education at the preschool level (Shin, 1994). In Korea, special education is offered at the primary, junior high and senior high school levels. Special classes are attached to primary and secondary schools and provide special education services for students with mild disabilities. There are special schools for students with blindness, deafness, mental retardation, or physical disabilities (Gannon, 1985; Postlethwaite, 1988). Curricula for students with mental retardation or severe disabilities are different from general education curricula. Through partial integration, students with mild disabilities are placed in general education settings.

According to the Ministry of Education, students are diagnosed into one of seven disability categories:

- visual disabilities,
- hearing disabilities,
- mental retardation,
- physical/orthopedic disabilities,
- emotional disturbances,
- speech/language disabilities,
- learning disabilities.

The local examining committee (at the level of city or province) and the central examining committee (at the Ministry of Education) use criteria stipulated by the legislation to decide each child's eligibility for special education services. The director of the local education agency uses this information to decide admission of students with disabilities to elementary, junior, or secondary high schools. The Minister of Education is involved in the decision-making process regarding admission of students with disabilities to junior colleges, colleges or universities.

Standard curricula were developed exclusively for special schools in 1989 and effective in 1993. Current efforts are being made to provide more time and better facilities for career education for students with disabilities (Shin, 1994).

Placement/tracking decisions. Within each level of education, grade-to-grade promotion is generally automatic. Certificates are awarded upon successful completion of each of the three levels of schooling: (a) the six-year primary school, (b) the three-year middle school, and (c) the three-year high school (Shin, 1994).

When students apply for admission to a high school, they can choose from a track of general education for college-bound students, or that of vocational education. The majority of senior high schools are divided into these two streams. There are also comprehensive schools that provide education incorporating both general and vocational education. In addition to the general and vocational tracks, senior high school students choose one concentration area focusing either on humanities/social studies or science curriculum. Students who fail the entrance examination for high schools or who do not complete high school may seek employment or continue their education through adult education programs (Gannon, 1985).

Colleges and universities select their students on the basis of the composite score on the Scholastic Achievement Examination for College Entrance, high school academic records, and scores on essays administered by individual universities (Shin, 1994).

Assessment practices. With regard to national assessments, there are tests provided by the National Institute of Educational Evaluation and those prepared by private institutes. Nationwide achievement testing is conducted annually to monitor national standards of achievement in several subjects in Grades 3, 7, and 10. The majority of schools voluntarily participate in tests that are developed and administered by private institutes. Almost all 12th grade students in general high school take the private institute tests (Shin, 1994). Generally, the results of the private institute tests are used for making decisions about student placement or providing guidance for college selection.

School accountability has been of great concern since the late 1980s. School self-evaluation is now widespread at every level of schooling from elementary to university. Also, the Ministry of Education and the National Institute of Educational Evaluation produce an annual statistical yearbook about education. In attempts to assess the achievement level of its youth and the quality of the educational system, Korea has participated in international assessments conducted in math and science, the International Mathematics Olympiad (since 1988), and the math and science assessments sponsored by the National Science Foundation and the National Center for Education Statistics of the U.S. (Shin, 1994).

Students with disabilities are allowed to participate in the evaluation of the educational achievement to the same extent as regular education students. For students with mental retardation or severe disabilities, the evaluation is conducted primarily to develop an individualized education program or to

decide the transition to the next level of education. Intelligence test scores, school performance, social adaptability, and parental collaboration are considered in deciding their placement. However, there are no specific criteria or guidelines for determining who is included in large-scale assessments, if any students participate (Shin, 1994).

According to the Early Childhood and Special Education Office in the Ministry of Education, extended testing time and examination in Braille are allowed during testing. However, as noted before, students with visual impairments are predominantly educated in special schools. Therefore, it is unclear whether these students are tested with the same test materials as those given to students without disabilities.

Reporting of results. The assessment results of students with disabilities and respective scoring or reporting of the results are not indicated (Shin, 1994). It is unclear whether assessment results are obtained from students with disabilities and whether the assessment results are reported as separate data or integrated with those obtained for regular education students.

Netherlands

The Netherlands is a part of the European Community with a total land mass of 14,413 square miles (37,330 square kilometers). Its total population was estimated at approximately 15 million in 1993 (Wright, 1995). The Netherlands is one of the most densely populated nations in the world. The economy is supported by transportation, commercial services, and highly developed agricultural and horticultural industries (Vuyk, 1994). Approximately 50% of the labor force is found in the service sector and about 30% is employed in manufacturing and construction areas (Wright, 1995).

General education system. The formal educational system consists of three levels: primary, junior and secondary vocational training and secondary general education, and vocational colleges and university education. Compulsory education is offered to children for 12 years (ages 5-16) from primary school until they finish the first stage of the second-level education (UNESCO, 1992). From the age of 16, there is two-year, part-time compulsory education for those students who do not follow full-time education (Meijer, 1994).

Noteworthy in the Dutch education system is the combined program merging preprimary and primary schooling. The 1985 Primary Education Act merged kindergartens and primary schools to form a new primary school providing basic education for 8 years from the age of 4 (OECD, 1991; UNESCO, 1992; Vuyk, 1994). Every two years, the competent authority (consisting of local school boards) draws up the school work plan, which includes teaching objectives, subject matters, the school organization, and student progress monitoring. The annual plan of activities of each primary school addresses this school work plan (OECD, 1991).

After leaving both the primary school and the transition class which is offered in the first year of secondary education, students are referred to the school best suited to their needs (OECD, 1991). As a result of the 1968 Secondary Education Act, called the Mammoth Act (Nijhof & Streumer, 1985), secondary general education was restructured. There are two main branches of secondary education: (a) general secondary and pre-university education; (b) vocational and prevocational education (OECD, 1991). Secondary general schools offer six-year, pre-university education to students wanting to enter universities or colleges. Junior and senior general secondary education schools offer 4- and 5-year courses, respectively, to prepare students for higher professional education. Junior and senior secondary vocational education is offered for four years to provide vocational or technical education. Nonvocational education is provided for those who leave compulsory education prematurely. Recently, the entire system was reconstructed. Now, in the first three years of secondary school, all children go through a more comprehensive system (called *basisvorming*) with the same curriculum but at a different pace (Meijer, 1994).

Tertiary education comprises higher professional education, the universities, and the Open University.

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	Integrated		
	into primary ed.		
First-level	4	8	Y
1st stage of second-level	12	3	Y
		4 *	
2nd stage of second-level	15	3	Compulsory until age16
		2	

Note. First-level education signifies primary education, and second-level education is divided into two stages of general secondary education: junior and senior secondary education (Vuyk, 1994).
* Years of schooling may vary (UNESCO, 1992).

Special education. In the Netherlands special education refers to a separate system of education. Separate primary and secondary special education is provided for students in special schools. Special schools serve children from the age of 3 to 20 who have disabilities or do not make progress in ordinary schools. Special education students are classified into three categories: (1) learning disabled (LOM schools), (2) educable mentally retarded (MLK schools), and (3) students with developmental difficulties (IOBK departments). MLK schools provide special education for the hearing impaired, children with severe speech disorders, blind, partially sighted, physically handicapped, chronically ill, "hospital bound" children, severely maladjusted, multiply handicapped, and children in schools associated with universities. IOBK serves children with severe mental retardation. According to 1984 statistics provided by *Centraal Bureau voor de Statistiek* (Van der Leij, 1987), special education is provided not only for these students but also those admitted to hospitals and suffering from long illnesses. Among these student populations, the number of students with learning or behavioral difficulties has increased. The largest number of special education students are served by LOM and MLK schools.

The competent authority of a special school decides who gets special education services based on the advice and selection of a board of experts. Students receiving special education services are re-examined every two years (Vuyk, 1994).

Although children with physical handicaps have been integrated into general education settings to an increasing extent, there still remain different types of special primary and secondary schools (OECD, 1991). Most emotionally disturbed students are placed in special schools.

Placement/tracking decisions. In the Netherlands, a two-track system of education was established in 1985 under the two separate laws for general and special education; the Primary Education Act applies to children aged between 4 and 12, and the Special Education Interim Act applies to children with disabilities. The Dutch educational system is characterized by selective practices of early assessment and streaming. Each child is assessed at the end of each school phase. Two key transition points for students are the end of primary schooling and the end of secondary schooling. Promotion from one grade to the next in primary school is decided by norm-referenced tests. Students who are in the lower 25% of the range are not eligible for promotion (Nijhof & Streumer, 1985). Students at the end of primary school (at the age of 12) take the primary school-leaving examination and are enrolled in the first year of secondary

school, which is an orientation year. Based on the combination of academic record, examination scores (particularly in science), and psychological tests, students are assigned by a board to one of three streams: university preparatory, general secondary, and vocational (OECD, 1994).

Those who are against the selective educational system suggest a comprehensive school system for all children leaving the primary schools. This effort is made to prevent students from making a premature commitment for an occupation or a field of study (Nijhof & Streumer, 1985).

In secondary education the Dutch educational system is still highly differentiated and vertically organized. Children at the age of 12 are selected for different school types on the basis of scholastic aptitude.

Assessment practices. Although the Dutch educational system is characterized by selective practices of early assessment and streaming based on scholastic aptitude, it has not had favorable views toward its existing standardized testing of students or centralized assessment of the quality of education. Negative attitudes toward standardized and/or centralized assessment procedures are expressed as follows: "there are no mandatory standardized tests of student ability and achievement, either when entering the [secondary education] system or at regular points thereafter. Even the scores of terminal examinations taken by secondary students to gain entrance to tertiary education depend equally on local school-designed examination results" (OECD, 1991, p. 25).

For the purpose of evaluating the quality of educational institutions, student achievement is assessed once every eight years in each subject of primary education. The results have been used both by the government to intervene with problems and by schools to compare their own results with the national level of achievement.

However, there is neither discussion about whether students with disabilities are included or excluded in large-scale assessments nor about specific criteria for inclusion or exclusion (Vuyk, 1994). Accommodation procedures or policies for testing students with disabilities in large-scale assessments are not found.

Reporting of results. In the most recent edition of the International Encyclopedia of Education (Vuyk, 1994), no discussion is made about how the assessment results are collected, scored, and reported or whether the results of students with disabilities are included in the process.

Nigeria

Nigeria, located on the western coast of Africa, has a land mass of approximately 356,668 square miles (923,770 square kilometers). Its population was estimated at 95,060,430 in 1993 (Wright, 1995). Nigeria is a multi-ethnic and multi-lingual country. There are 394 different languages and as many ethnic groups; however, English is the official language (Yoloye, 1994). In the past, particularly before independence, the Nigerian economy was dominated by agriculture. However, the importance of the agricultural sector in the Nigerian economy has decreased since the oil industry boom. Approximately half of the Nigerian labor force works in agriculture (Wright, 1995).

General education system. Nigeria has a 6-3-3-4 formal education system, which consists of six years of primary education, three years of junior-secondary education, three years of senior-secondary education, and four years of university education. Preschool education is offered for children between the ages of 3 and 6 in nursery schools. However, primary education is entirely in the hands of private individuals or groups.

Entrance age to preprimary education is 3, but it is not compulsory. Compulsory education starts at the age of 6 and continues for 6 years until the age of 12 (UNESCO, 1992). Discrepancy among sources of information about compulsory education should be noted, however. The UNESCO Statistical Yearbook (1992) provides the information about age limits and duration of compulsory education (i.e., the

age of 6 to 12, for 6 years). In contrast, Yoloye (1994) discusses in the second edition of the International Encyclopedia of Education that primary education, which fits the years of compulsory education presented in the UNESCO Statistical Yearbook, is not compulsory although it is free. Yoloye also holds that there is no compulsory age for education.

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	3		N
First-level	6	6	Y
1st stage of second-level	12	3	N
2nd stage of second-level	15	3	N

Note. Education preceding the first level means preprimary education, first-level education signifies primary school education, and second-level education is divided into two stages of general secondary education: junior and senior secondary schools (Yoloye, 1994).

Special education. Although little attention has been paid to preschool children with disabilities, students who are blind, visually handicapped, deaf, hearing impaired, physically handicapped, or mentally retarded, go to special schools. There are also homes for the mentally retarded. Integration of students with disabilities into general education settings is restricted to a few secondary schools. Thus, Nigerian students with mental retardation attend only special schools. Along with the lack of facilities available in general education settings, the low attendance rate of students with disabilities reflects the difficulties that the Nigerian special education system is currently facing. In fact, as of 1989, only about 0.4% of school-aged children with disabilities were actually in school (Yoloye, 1994). Nigeria is trying to expand general primary education and secondary education. In spite of the current effort to improve the quality of education, superstitions and taboos have strengthened false beliefs regarding the birth of a handicapped child, and these thwart the development of special education.

Placement/tracking decisions. The 1981 National Policy on Education stated that there would be no formal examination at the end of primary schooling. Both primary school and junior-school certificates would be based on continuous assessment. However, in practice, formal examinations are still organized by the state ministries of education at the end of primary and junior-high school years. Certificates, based on a combination of continuous assessment and a final examination, are granted at the senior-high school level (Yoloye, 1994).

Grade-to-grade promotion in primary and secondary schooling is based on student performance. However, very few students are retained because the policy of expanding primary and secondary education has resulted in a dramatic increase in the number of students entering and attending school. After graduating from junior-high schools, students decide whether they will go to senior-high schools, technical and vocational schools, or teacher-training colleges (Yoloye, 1994).

Assessment practices. As of 1992, "there was no regular or systematic assessment of the performance of the system on a national scale. Such assessments are [currently] being planned" (Yoloye, 1994, p. 4131). Recently, university-affiliated research institutions are involved in international surveys

(e.g., the IEA international surveys of educational achievement). General education statistics such as student enrollment, the number of teachers, and educational expenditures are collected on an annual basis.

With regard to the Nigerian large-scale assessments, criteria for inclusion or exclusion of students with disabilities have not been found. It is unclear whether Nigeria has established criteria yet. Even in the most recent edition of the International Encyclopedia of Education (Yoloye, 1994), there is no discussion of inclusion or exclusion criteria. No discussion is made about accommodations in large-scale assessments for students with disabilities.

Reporting of results. No discussion is made about how the results of large-scale assessments are scored, reported, or how the results of students with disabilities are dealt with in the process.

Sweden

Sweden is a Scandinavian peninsula, located in the northwestern part of Europe. With a total land area of 173,731 square miles (449,964 square kilometers), Sweden's population is estimated at 8,730,286 (Wright, 1995). Major industries include iron, steel, precision equipment, and wood pulp (Wright, 1995).

General education system. National objectives and guidelines for public schooling are defined by the Riksdag (parliament) and Government; however, each municipality has local control in the operation of each of its schools (Skolverket, undated-d). In Sweden, entrance age to preprimary education is 4 years. Children can start schooling at age 6 if their parents wish and if there is enough capacity in schools. As of July 1, 1997, municipal authorities will provide places in school for all six-year-old children (Skolverket, undated-a). A nine-year compulsory comprehensive schooling is offered to students aged 7 to 16 years and is divided into three levels: (a) junior (grades 1-3), (b) intermediate (grades 4-6), and (c) senior (grades 7-9). At the age of 16, compulsory full-time continuous education ends. Students then move to a post-compulsory school, which is not necessarily full-time and continuous. Secondary schools are not separated by different streams (i.e., academic versus vocational). Even post-compulsory schooling is provided in an integrated upper-secondary school (gymnasieskola). In this school, academic, general and vocational education are offered equally to students (Marklund, 1994).

Sweden's compulsory education is implemented in three types of schools: (a) compulsory basic school; (b) Lapp nomad school; and, (c) special school (for children with impaired vision, hearing or speech) and compulsory school for the intellectually handicapped (Skolverket, undated-a). Lapp nomad school corresponds to the first six years of compulsory basic school, but it also emphasizes ethnic backgrounds for the Lapps.

Compulsory education is conducted in such a way that students are free to choose their line of upper secondary schooling. Students are not grouped in a way to deny the opportunity of further education for those whose educational achievement is low.

More than 90% of all students attending compulsory basic schools go on to upper secondary schools (Skolverket, undated-e). The predominant number of post-compulsory students complete their upper secondary schooling within four years (Skolverket, undated-e). In addition, voluntary schools also comprise Sweden's public school system. Voluntary schools include upper secondary school, upper secondary school for the intellectually handicapped, municipal adult education and education for intellectually handicapped adults.

Special education. Although most students with disabilities receive their schooling at general education schools or regular classrooms, students with reading difficulties, mental impairment, visual or hearing impairment, severe physical disabilities or social-emotional problems attend special schools (Marklund, 1994). The special school system comprises ten grades for children vision impairments and deafness or children who are hard of hearing with secondary disabilities (Skolverket, undated-d). Although students who are deaf and students with severe speech and learning difficulties attend special

schools, most students with hearing impairments and students with visual and physical disabilities go to compulsory basic schools (Skolverket, undated-a).

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N)
Preceding first-level	4		N
First-level	7	6	Y
1st stage of second-level	13	3	Y
2nd stage of second-level	16	3	N
		2 *	

Note. Education preceding the first level means preschool education, first-level education signifies primary education, and second-level education is divided into two stages of general secondary education: lower and upper (Marklund, 1994).
* Years of schooling may vary (UNESCO, 1992).

The basic idea behind all modifications for students with disabilities is that individuals should not be denied educational opportunity because they are unable to follow instruction in a regular compulsory or upper secondary school class. Students with disabilities are mainstreamed as much as possible into nearby general education settings. Compulsory education is also implemented in special schools and in compulsory schools for the intellectually handicapped. Special schooling is compulsory for ten years and matches compulsory basic schools as much as possible (Skolverket, undated-c). Those students with intellectual disabilities who are able to learn to read and write attend compulsory basic schools; however, most students with intellectual disabilities go to compulsory schools for the intellectually handicapped, which consist of nine grades (i.e., between the ages of 7 and 16) (Skolverket, undated-b). Training schools also provide social training and practical skills for the intellectually handicapped. Upper secondary schools for the intellectually handicapped offer vocational education in the form of national, specially designed, or individual programs for four years (Skolverket, undated-e). This upper secondary schooling is offered for four years in much the same way as in the regular upper secondary schooling (Skolverket, undated-d). Children who are deaf and hard-of-hearing with sign language as their first language, children with visual impairments and secondary disabilities, and children with speech or language impairments attend special schools. In Sweden, the ability to communicate with others is taken as a principle of integration. According to the Law of 1983 and its amendments, the segregation policy is applied to students with hearing impairments (OECD, 1994). A fairly large number of students with hearing impairments are found in special education units, whereas all children with visual impairments are in general education settings, except for those who have secondary disabilities, and most students with motor disabilities are also integrated into general education settings (OECD, 1994).

Architectural integration, which Sweden adopted in the 1970s, allows students with special needs to "use premises located in an ordinary school and share the equipment of the school" (OECD, 1994, p. 16). However, in Sweden there are also regulations in force for the appropriate placement of each category of disability. "The deaf and the severely mentally retarded are placed in special schools as a matter of principle" (OECD, 1994, p. 17).

Adjusted study programs are planned for those who cannot make progress in general education settings. The time schedule is reduced and/or work experience is alternated with content-oriented subjects.

Although a student in an adjusted study program will not obtain a complete compulsory school leaving certificate, the student can go to upper secondary school (Skolverket, undated-c).

Placement/tracking decisions. Marks are sparingly awarded for the students' final certificates. There are no final examinations in the compulsory comprehensive school and the integrated upper-secondary school (Marklund, 1994).

Assessment practices. In compulsory schooling, centrally compiled tests measuring the achievement of individual children do not exist, even though they exist in certain subjects in upper secondary schools (The Swedish Institute, March 1992). However, during the period of compulsory schooling, standardized tests are administered to measure the achievement of a class or a school in certain subjects and to compare it with the country. The standardized tests for primary education are restricted to Grades 8 and 9. The results are used to help teachers make students' marks comparable all over the country, but these marks do not enter the students' final certificates (Marklund, 1994).

The National Evaluation of Compulsory Education is an ongoing project, which started in 1989. A national sample of classes in grades 2, 5, and 9 are evaluated every three years (Marklund, 1994). Sweden also participates in international studies of student achievement such as the IEA project. Ten-year-olds, 14-year-olds, and pre-university-age students are sampled for this assessment project (Marklund, 1994).

The practice in Sweden is to not count the number of special education students. This is an attempt to avoid segregation and improve integration of these students. Thus, it is unclear whether students with disabilities are allowed to participate in large-scale assessments or are excluded (OECD, 1994). In the most recent edition of the International Encyclopedia of Education (Marklund, 1994), there is no discussion of criteria for inclusion of students with disabilities or accommodations in assessments for them.

Reporting of results. From the above discussion about the administration of standardized achievement tests and the use of their results, it appears that data about the achievement of each student, a class, or a school are available. However, there is no discussion about how the assessment results are reported, and how students with disabilities are dealt with in the process (Marklund, 1994).

Tunisia

Tunisia is located on the northern coast of Africa, and has a land area of 63,170 square miles (163,610 square kilometers; figures include land and inland waters), and a total population of 8,570,868 (Wright, 1995). Tunisia's economy depends upon agriculture and tourism. Major industries include mining, petroleum, and textiles (Wright, 1995).

General education system. The educational system in Tunisia was unified by the 1958 Education Act. After Independence of the Nation, a unified national educational system was established. Since the late 1980s educational reform has been seriously considered. The primary concern has been the provision of compulsory basic education for children aged 6 to 16 years.

The New Education Act of 1990 reestablished the Tunisian educational system. Compulsory basic education is sponsored by each state. All children between the ages of 6 and 16 receive a free education (Jaballah & Lamine, 1994). Preschool education in Tunisia starts at the age of 3 and is also regulated under the Education Act of 1990.

The current educational system in Tunisia is under transition from the old system where primary education was provided for six years and a two-stage secondary education for seven years (i.e., 6-(3-4) organization), to a new system that provides basic education for nine years and a secondary education for four years (i.e., (6-3)-4 organization). This reform was made in an attempt to reinforce compulsory education and postpone specialized education until the 11th grade. Under the new educational system,

basic education consists of six years of primary and three years of preparatory education, and secondary education is given in two stages, two years of general education and two years of specialized education (Jaballah & Lamine, 1994).

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N) **
Preceding first-level	3		
First-level	6	6	
		8 *	
1st stage of second-level	12	3	
2nd stage of second-level	15	4	

Note. Education preceding the first level means preschool education, first-level education signifies primary education, the first stage of second-level education signifies lower secondary education, and the second stage of second-level education is offered in upper secondary schools (Jaballah & Lamine, 1994).
* Years of schooling may vary.
** No information about compulsory education is available from the Statistical Yearbook. (UNESCO, 1992)

Special education. Students with disabilities receive education until the legal age of employment, age 16 (Jaballah & Lamine, 1994). According to Jaballah and Lamine (1994), the population with disabilities in Tunisia is categorized into those with blindness, deafness, and motor deficiencies. Under Tunisia's educational policy, students with disabilities are integrated into the general education system.

Placement/tracking decisions. Promotion from primary to preparatory schools is based on the results of the sixth grade and a regionally administered examination. Two national examinations are given to students during what is deemed a transitional period. One is for entrance to secondary schools and the other is for diploma in secondary education (Jaballah & Lamine, 1994). Diploma examinations are organized by the Ministry of Education. In order to be admitted into higher education, students must pass the *baccalaureat*, the end of secondary school examination.

Assessment practices. As mentioned above, national examinations are administered to make decisions regarding entrance to secondary schools and completion of secondary education (Jaballah & Lamine, 1994). Students with disabilities are provided with the opportunity to take these national examinations. However, the criteria for inclusion have not been found (Jaballah & Lamine, 1994). Thus, it is not clear either whether all students with disabilities participate in the national examinations so that criteria for inclusion are not necessary or whether the criteria have not yet been established. Accommodations are made in time periods and physical environment (Jaballah & Lamine, 1994).

According to the Education Act of 1990, the educational system is to be evaluated continuously by the Ministry of Education through surveys, seminars, and workshops. However, evaluation of the educational system has not been taken seriously and is not conducted on a regular basis (Jaballah & Lamine, 1994).

Reporting of results. In the International Encyclopedia of Education (Jaballah & Lamine, 1994), there is no discussion of how assessment results are collected, scored and reported, or how the results of students with disabilities are dealt with in the process.

United States of America

The United States of America (U.S.A.) is located on the North American continent. It is the fourth largest country in the world, covering a land area of 3,618,770 square miles (9,372,610 square kilometers), and the population was estimated at 258,103,721 in 1993 (Wright, 1995). The U.S.A. is an extremely diverse country in terms of its racial and ethnic backgrounds. Industries in the U.S.A. are also very diversified and range from aerospace, telecommunications, and electronics to mining, food processing, and lumber (Wright, 1995).

General education system. The educational system in the United States of America is characterized by a decentralized system, where the federal government does not control public education. However, the federal, state, and local governmental agencies cooperate in education of the youth. In particular, the federal government is involved in establishing guidelines for the education of students with disabilities, the accountability of the educational system, and the policy regarding financial allocation.

Preschool education precedes the age of compulsory education and begins at the age of 3. Compulsory education starts at the age of 6 and lasts for 11 years until the age of 16. However, the age of entry to compulsory education varies among states. Alternatives with regard to the age of onset and duration of schooling in the first-level and in the second-level education also exist (UNESCO, 1992). The system of secondary schooling varies among school districts. In some districts secondary schooling is divided into three-year junior (grades 7-9) and three-year senior high schools (grades 10-12); some have combined high schools while others have four-year middle (grades 5-8) and four-year high schools (grades 9-12) (Valverde, 1994).

	Age of Entry (Years)	Duration (Years)	Compulsory? (Y/N) **
Preceding first-level	3		
First-level	6	8	Y
	5 *	6 *	
Second-level	14	4	Compulsory until age 16
	12 *	6 *	

Note. Education preceding the first level means nursery and kindergarten education, first-level education signifies elementary school education, and second-level indicates general secondary education (Valverde, 1994).
*Age of entry and years of schooling may vary (UNESCO, 1992).
** Between-states and within-state variations exist in the age of onset and duration for free compulsory education (Valverde, 1994).

Special education. Since the passage of the Education for All Handicapped Children Act of 1975, the federal government has been involved in providing educational services for students with disabilities. According to stipulations of this law, PL 94-142, all states are supposed to identify children with disabilities and provide them with special education services.

Once a student with disabilities is identified, an Individualized Education Plan (IEP) is written. This plan, based on the student's present levels of educational performance, delineates areas of needed skill instruction and remediation. It provides a vehicle to review a student's performance on a yearly basis. The IEP is reviewed yearly at an Annual Review. Goals of the IEP and short-term instructional objectives are examined. During this process it is determined whether the student has achieved the goals and objectives of the IEP. Decisions about the need for the continuation of special education services, and about any changes in the frequency and duration of services are made. If special education services are continued, revised goals and objectives are written for the upcoming school year.

The Individuals with Disabilities Education Act of 1990 (IDEA), formerly the Education for All Handicapped Children Act of 1975, stipulates that children with disabilities must be provided a free and appropriate public education in the Least Restrictive Environment (LRE). The LRE, according to Federal Regulations (34 CFR Parts 300 and 301, 300.550), states that each public agency shall ensure:

(1) that to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled; and

(2) that special classes, separate schooling or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

In sum, a school or district must give just cause as to why a student with a disability should not be educated in the mainstream of school. Therefore, the first placement for any child with a disability is in the general education setting.

There are thirteen disability categories recognized under Part B of IDEA:

Autism
Deaf-blindness
Deafness
Hearing impairment
Serious emotional disturbance
Mental retardation
Multiple disabilities
Orthopedic impairment
Other health impairment
Specific learning disability
Speech or language impairment
Traumatic brain injury
Visual impairment

Placement/tracking decisions. In the United States, second-level education students choose a major area of study (e.g., mathematics, English, business, language, nursing). Once identified, students select the means of schooling, for example, advanced placement study for college/university preparation, vocational training programs, and/or basic competency study.

Assessment practices. The federal government conducts cross-sectional data collection on the performance of young Americans. In addition to the data on student achievement, data on student enrollment, expenditures, graduation rates, and the like are collected and compiled through surveys conducted annually by the National Center for Education Statistics (NCES). Information about financing of public elementary and secondary schools is collected at the state level through the surveys, and information about students and staff is collected at the school, local, and state levels.

National Assessment of Educational Progress (NAEP) is a congressionally mandated data collection. It is funded by NCES at the U.S. Department of Education and is carried out under a grant to the Educational Testing Service (ETS). Since it was initially implemented in 1969, information about the knowledge and performance of American youth across the country has been used to determine the nation's progress in education. NAEP is "the nation's only ongoing monitor of academic achievement at the elementary, middle school, and high school levels" (ETS, undated, p. 4). NAEP biennially assesses

samples of students in grades 4, 8, and 12 in several content areas, including reading, writing, mathematics, science, history, and geography (Glaser & Linn, 1993).

In addition to the national assessment, a voluntary state assessment was authorized by Congress in the late 1980s. The first NAEP Trial State Assessment (TSA) was conducted in 1990 to examine the mathematics achievement of public school students in eighth grade and to compare their performance with that of eighth graders in other states across the nation (ETS, undated). The TSA program was repeated in 1992. Fourth-grade students were assessed in mathematics and reading, and eighth-grade students were assessed only in mathematics (Glaser & Linn, 1993). The TSA was repeated in 1994, focusing on student achievement in reading.

Many states have adopted the National Assessment of Education Progress (NAEP) guidelines when developing their policies about including students with disabilities in assessment. The NAEP guidelines read:

> Students on Individual Education Plans (IEPs) may be excluded if the student is mainstreamed less than 50% of the time in academic subjects and is judged to be incapable of taking part in the assessment or the IEP team has determined that the student is incapable of taking part meaningfully in the assessment (Ysseldyke, et al., 1994, p. 1).

This NAEP guideline has been the target of much criticism. However, it is not the sole source of exclusion. There are many factors that underlie the exclusion of students with disabilities from large-scale assessments (Ysseldyke, Thurlow, McGrew, & Vanderwood, 1994). Some of the primary reasons include the use of vague guidelines that allow local decisions about the participation of students who are on IEPs. Thus, final decisions about students to be included in large-scale assessments seem to depend upon the following factors:

1. The differential implementation of guidelines;
2. The failure to monitor the extent to which the intent of the guidelines is followed;
3. Assessment practices that systematically exclude students who are in separate schools or not in graded programs;
4. An unwillingness to make accommodations in assessment materials and procedures that will enable some students to participate;
5. An altruistic motivation to lessen the emotional distress to the student who is not expected to perform well;
6. Incentives created by the desire to have a school or state look good in comparisons to others in the state or nation.

Although state-level guidelines on exclusion and testing accommodation for students with disabilities do exist, many states inconsistently implement the criteria. For example, most often state-level outcomes information is generated from large-scale general education achievement assessment in which students with mild disabilities participate. However, the extent to which they participate is unclear. Where students with disabilities do participate in these assessments, most states do not report the data on these students.

With this in mind the National Center on Educational Outcomes (NCEO) has explored the policies and practices that revolve around students with disabilities and large-scale assessments. NCEO has demonstrated that states vary considerably in the guidelines they have for both (a) making decisions about the participation of students with disabilities in assessments (Thurlow, Scott, & Ysseldyke, 1995b), and (b) determining the kinds of accommodations and adaptations that are used during assessments (Thurlow, Scott, Ysseldyke, 1995a). Perhaps the most serious concern revolves around the exclusion of students with disabilities from data collection programs (McGrew, Thurlow, Shriner, & Spiegel, 1992). McGrew et al. (1992) revealed that most national and state data collection programs exclude a large portion of students with disabilities. The type of exclusion ranges from the development of assessment instruments to the reporting of results. McGrew et al. (1992) found that a sizable portion of excluded students could

readily participate, some with testing modifications. This practice of exclusion severely hampers the ability to extract useful policy-relevant information on this population.

The National Education Longitudinal Study (Ingels, 1993) revealed similar evidence. This national data collection program followed students starting in grade 8 in 1988, two years later (in 1990 or grade 10) and then again in grade 12 or in 1992. It was discovered that students appeared to be excluded categorically, even though the guidelines had indicated this should not be done. In 1990 at the first follow-up, investigators went back to look at the eligibility of those students who had been excluded during the first year. It was found that 53% of previously excluded students did not meet the criteria for exclusion, 40% still were eligible and 7% could not be located. While many of the newly eligible students in 1990 were students with language exclusion originally, 39% of physical barrier exclusions and 42% of mental barrier exclusions were classified as eligible in 1990. These data led researchers to "support the contention that a large number of students with disabilities who could successfully have participated were excluded by their school" (Thurlow, in press, p. 11).

Clearly, policies regarding assessment are in transition. This is reflected in terms of the format of assessments (Shriner, Spande, & Thurlow, 1994; Thurlow, 1994) and the content of assessments, as well as in the consideration of the participation of students with disabilities.

State-level efforts have continued to look at existing guidelines related to both participation of students with disabilities in assessments and testing accommodations. During 1993 and 1994, more than two-thirds of the states indicated that they have guidelines on the participation of students with disabilities in statewide assessment programs (Thurlow, Scott, & Ysseldyke, 1995b). Since 1993, approximately 35 states (not necessarily the same states as those having some guidelines on the participation) have produced new guidelines on testing accommodations (Thurlow, Scott, & Ysseldyke, 1995a).

Reporting of results. The Nation's Report Card (NAEP) provides information about the levels of educational achievement across the country. Neither the individual scores on the NAEP, nor school, school district, or state results are reported. Instead, the NAEP results are used to provide data linked to national and state policies. NAEP is considered to be a primary source of data for assessing the effects of educational reform. NAEP reports on the status of students in the United States, and on a trial basis the performance of students in specific states in terms of performance on tests of achievement and related variables such as amount of time spent reading, watching TV, and family configuration, to name but a few.

Results of NAEP do not yield scores on individual students or schools. While it is possible to derive district scores, doing so is prohibited (National Assessment Governing Board, 1992). NAEP is designed to describe the performance of student learning. With this in mind, there is an imperative need to include students with disabilities in the reports.

Many states have developed their own statewide assessments that correspond to the states' identified curricular frameworks or learning goals. These statewide assessments are given on a regular basis. The results are most often reported by district and in some cases by school building. Currently many states are revamping statewide assessment procedures and practices in an attempt to include more students in the assessments by creating inclusion/exclusion criteria and accommodations.

Discussion

For more than a decade, education has emphasized assessment as a means to measure progress toward goals. There has been seemingly greater emphasis placed on assessment for making decisions that have an impact on life opportunities. Unfortunately, assessments are often directed down the middle and above. That is, low-achieving students and students with disabilities are often excluded in test standardization processes and regular school assessment programs (McGrew et al., 1992). Students who are left out of assessments tend not to be considered during reform efforts. At a time when assessment for

accountability has dominated international and national dialogue, the importance of the inclusion of students with disabilities is imperative.

Historically, the emphasis on data collection in special education has been on monitoring the delivery of services, not their results. Participation and exit data have been a major source of special education's data collection. While this information may hold considerable value, it is neither reflective of student learning, nor useful for instructional decisions.

Since the enactment of PL 94-142, the education of students with special needs in the United States has changed dramatically. It has been and continues to be an evolutionary process. The unanticipated results of special education (e.g., special education recipients have achieved below the level of our expectations for them) have, in part, led to needed reform in the dual system of educating general and special education students in the United States.

Over the past 16 years, the Annual Report to Congress (U.S. Department of Education, 1994) has revealed a fairly bleak picture of special education. Data indicate that special education students do not necessarily "get better" once placed in special education. In fact, absenteeism and dropout rates were reported to be higher for students with disabilities than for the general population of students, and grades were lower. Despite of these results, the number of children referred and classified with specific learning disabilities now still accounts for more than half (51.1%) of all special education students aged 6 through 17 years enrolled in school (U.S. Department of Education, 1994).

Special education until now has been a process-oriented system, answering questions such as " Is the student getting the services he/she needs?" Today our level of concern and awareness about service delivery and the overall lack of progress of special education students has shifted to be one that is product oriented, "Is the student learning?" The variables (e.g., effective instruction, behavior management, curriculum-assessment alignment, opportunities-to-learn) that affect this progress are vast and beyond the scope of this paper. However, lately these have become the focal point of service delivery to all students, including those with disabilities.

Similarly, separate assessment systems or systems that allow exclusion of all students with disabilities from participation in accountability systems reinforce the notion that all educators are not responsible for all students. When the purpose of large-scale assessments is to describe the status of students in the educational system, why would it make sense for some students to be excluded?

NCEO has been instrumental in bringing to light a serious issue in U.S.A. large-scale assessment practices. That is, students with disabilities are more often than not excluded from assessments. The high-stakes nature of the assessments create incentives for individual schools, districts or states to exclude students with disabilities from either administration of tests or reporting of results. The National Education Longitudinal Study yielded similar findings. Data revealed that "a large number of students with disabilities who could successfully have participated were excluded by their school" (Ingels, 1993, p. 11).

There are at a minimum two important levels of concern about the results of assessment, the individual student and policy decisions. In regard to the individual student the question remains: How does the assessment help the teacher and/or parent understand the individual student's skills and view of the world? At the policy level, policymakers need information on all students to make decisions for all students. Policy and administrative decisions are made based on the results of national test scores. Tragically, students with disabilities who are excluded from assessments are often excluded from curricular and other important educational reform activities. When students are excluded from assessment, policymakers have inaccurate or incomplete data for making decisions. Furthermore, educators, businesses, and others have poor or incomplete information on how countries or we as a nation are doing in educating all students, including students with disabilities.

Throughout the United States and other countries, efforts have been made to develop systems of educational indicators which serve as benchmarks and allow for the assessment of educational

performance. Through such efforts, studies have been conducted to develop indicators of student outcomes. Although these studies have been well planned, data have not been collected using standard procedures in all participating countries (Suter & Sherman, 1989). Differences in implementing sampling procedures, exclusion criteria, definitions of populations, test instruments, and test administration procedures certainly create doubts about the comparability of findings.

Particularly when it comes to cross-national comparisons, difficulties lie not only in the problems of statistical methodology associated with assessment activities (e.g., comparability in the definition of the student populations, differences in response rates), but also in the cross-national differences in the educational systems and in the various factors related to the educational systems. Even when ETS set a standard set of procedures for the IAEP to provide comparable measures of educational outcomes, countries participating in the IAEP may have applied those procedures in different ways. Similar problems can be found within a particular country. For example, in the U.S. an examination of the written guidelines on participation of students with disabilities in assessment confirms that states vary considerably (Thurlow, Shriner, & Ysseldyke, 1994; Thurlow, Ysseldyke, & Silverstein, 1993). In addition, there still is a lack of contextual information about the various educational systems. Thus, users of the data collected through such differently-applied procedures may be advised to take caution in interpreting the outcomes data when they do not have contextual information. Limitations of international reports such as this study also include the difficulty of establishing consistency in the use of educational terminology regarding educational practices and systems.

With this in mind, this cross-national study purported to present an opportunity to gain a cursory view of assessment practices in the international arena. The purpose of this paper was to explore existing practices of large-scale assessment in 14 countries (see Table 6). What was discovered was a parallel process to what has occurred in the U.S.A. in the education of all students, including those with disabilities.

In the U.S.A., the issue of inclusion/exclusion criteria for students with disabilities in large-scale assessments, criteria or practices in testing accommodations, and data-reporting methods have been a particular focus over the past two years. Yet, there is little information available on this issue even in the most recent edition of the International Encyclopedia of Education (Valverde, 1994). Some countries practice inclusion of students with disabilities in the least restrictive environment, but some do not. Some countries have an accountability system for schools, local educational agencies and states, but some do not. Some schools routinely assess their students with large-scale assessments, but most do not. Even of those countries that do utilize assessments, most have no or few documented provisions or criteria for including or accommodating students with disabilities in assessments. Therefore, these countries too are challenged to answer the questions, "Are special education students getting any better?" "Are they learning?"

There may exist several scenarios. Throughout the international education arena there may not be consistent data collection systems in the country. If there is such a system, students with disabilities are not included in the data collection processes. Perhaps data on the achievement of students with disabilities are collected from large-scale assessments but are not reported. A final scenario could be that data on the achievement of students with disabilities are collected and reported but it is difficult to gain access to the data.

Thus, caution is advised in interpreting the results of this study. We have attempted to cite trends or parallel processes in the development of assessment practices or policies for students with disabilities across countries. We have done so with the most recent resources available. Most information about educational systems and assessments in each country for this paper was taken from the 1985 and 1994 editions of the International Encyclopedia of Education and the 1992 UNESCO Statistical Yearbook. It was on intent to be as thorough and comprehensive as possible, based on the information and resources available. In some cases direct telephone conversations were held with the country's embassy and respective attachés for education.

Table 6

Cross-National Comparisons of Large-Scale Assessments for Students with Disabilities

Country	Special education	Assessment [1]	Inclusion/ exclusion	Accommodations	Data-reporting [3]
Argentina	Y	very little	-- [2]	--	--
Australia	Y	Y	--	--	Y
Canada	Y	Y	--	Y	Y
Chile	Y	Y	--	--	Y
China	Y	Y	--	--	--
England and Wales	Y	Y	--	--	Y
France	Y	Y	--	Y	--
Japan	Y	Y	--	--	--
Korea	Y	Y	--	Y	--
Netherlands	Y	Centralized testing is not mandatory	--	--	--
Nigeria	Y	Currently being planned	--	--	--
Sweden	Y	Y	--	--	--
Tunisia	Y	Y	--	--	--
U. S. A.	Y	Y	Vary from state to state	Vary from state to state	Y

Note.

1 Large-scale assessments.

2 Dashes indicate lack of documentation found regarding the policies and/or criteria about large-scale assessments.

3 Data-reporting systems: This chart indicates that the country has a system of reporting data about assessment results. However, the extent to which students with disabilities are included in the data-reporting process may not be documented.

Regardless of every effort, direct correspondence with individual countries proved unsuccessful. Consistent, timely responses were not received from the countries. Many were unable to provide any additional information other than what was available in the 1994 International Encyclopedia of Education. Furthermore, educational practices in the United States and the 13 countries cited here are changing. Changes in the international forum may not be reflected in the most recent sources of available material.

Although the systems of delivering education to students with disabilities and the assessment of learning outcomes is of extreme importance, either mapping various systems and practices on a couple of models or making comparisons across different educational systems is very difficult, primarily due to the differences in the information available and the terminology used. Differences are clearly related to the validity of a study resulting from sampling and test biases and are related to the countries' cultural and institutional arrangements such as age of entry, tracking or streaming, curriculum, decision-making points, assessment policies, and years of compulsory education. While international assessments of education continue to be the object of intense study, it is apparent why the analyses and reporting are controversial.

Despite such difficulties, additional work is needed in providing a common foundation for comparative studies of education practices. The comparative study of school reform is likely to be as important as the analysis of achievement differences (Stedman, 1994). We need to look closely at how countries are restructuring their teaching, assessment, funding, and governance and determine whether these are affecting student learning. The inclusion of students with disabilities in these efforts will allow policymakers to develop a much-needed, systematic approach to U.S. school reform for all students.

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